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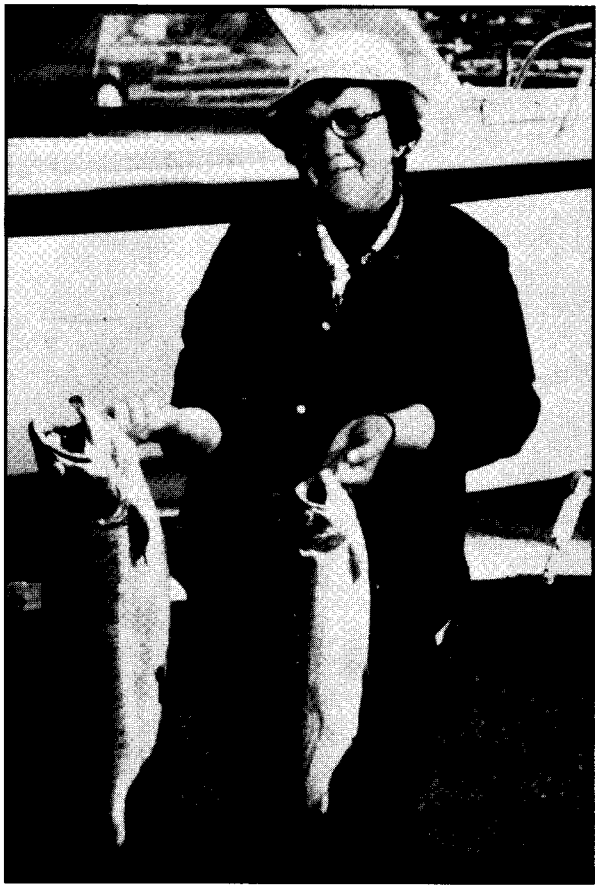
# IDAHO ANGLERS A SURVEY OF OPINIONS AND PREFERENCES





IDAHO DEPARTMENT OF FISH AND GAME

BETTER FISHING THROUGH GOOD MANAGEMENT

Funded by

FEDERAL AID IN FISH RESTORATION

# A SURVEY OF 1987 IDAHO ANGLERS

# OPINIONS AND PREFERENCES

Job Completion Report
F-35-R-13
Submitted to the U.S. Fish and Wildlife Service
Under
Federal Aid in Fish Restoration Program

**By**

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**ANGLER OPINION SURVEY**
**1987**

## EXECUTIVE SUMMARY

During 1987, sportsmen purchased 421,727 licenses to fish Idaho waters. Those anglers expended about 10 million days of effort. Idaho residents purchased just over 60% of all licenses sold, and over one-third of those anglers reside in Fish and Game's Region 3 (southwestern Idaho). The remaining two-thirds of the Idaho residents are equally distributed throughout the remaining five regions. Nearly 30% of the Idaho license buyers were nonresidents that spent less than ten days fishing. The nonresident anglers to Idaho came primarily from California, Washington, Utah, Oregon and Montana.

The average age of fishermen in Idaho has changed little from 1967. Anglers in the 30-39 and 40-49 age class made up almost one-half of the state's fishermen. Juvenile license buyers may have declined slightly from 1967. However, without statistical data from the 1967 survey, we cannot determine the significance, if any, of the decline. The Department should, however, continue information and education programs to introduce fishing to juveniles throughout the state. Those programs should be directed towards families that do not currently fish. Survey results indicate that family togetherness is one of the major reasons why people fish. The survey results also show that if a fishing family has children under 14 living at home, those children probably fish. The large number of female license buyers in Idaho is also indicative of the "family fishing" concept displayed by the Idaho anglers.

Sportsmen that belong to organized groups in Idaho are more vocal in letting their preferences be known than are fishermen who do not belong to organized sportsmen groups. In Idaho, less than one out of every five fishermen belongs to any sportsmen group. Based on a comparison of questions from the survey, there is a major difference between the opinions of group members and nongroup members. Those that join organized groups tend to be more oriented towards quality/trophy regulations and tend not to be bait fishermen.

Results of the survey also indicate that there is a significant difference in responses based on type of terminal gear preferred. Fly fishermen tend to favor, in greater numbers, more restrictive regulations, larger fish, protection of wild trout, and habitat protection programs. Bait anglers, on the other hand, tend to want high catch rates and less restrictive regulations. Bait fishermen support protection of wild trout and habitat protection but not in as great a percentage as fly fishermen. On most issues, those that stated a preference for lure fishing had opinions that would lie between those of fly and bait anglers.

Statewide, just over one-third of the fishermen in Idaho own a boat used for fishing. In Region 1, with a large portion of Idaho's lakes, over one-half of the fishermen own boats used for fishing.

Over two-thirds of both residents and nonresidents felt the current limit of 6 trout to be "about right." More nonresidents than residents thought 6 fish to be "too many." Over one-half of the Idaho anglers would not want the possession limit on lakes and reservoirs increased from one daily bag to two daily bag limits if it would result in lower catch rates.

The general Idaho angler seems quite satisfied with the quality of the Idaho Fish and Game's hatchery product. About one-third of the fishermen in the survey would like to have a few trout larger than 9 inches stocked, even knowing that one 12-inch trout will displace three 9-inch trout from the hatchery. A slightly larger percent of the fishermen did not want larger fish at the expense of numbers. Over two-thirds of the survey respondents would like to have additional program emphasis on hatchery trout for lakes, reservoirs, rivers and streams.

The issues of catch-and-release fishing, wild trout protection and trophy trout management appear to be the most volatile topics in the survey. Of all the topics addressed, these three issues drew the highest response rate and least number of "no opinion" responses. The vast majority of anglers fishing in Idaho feel protection and enhancement of wild trout needs additional program emphasis, and they would not want wild trout replaced with hatchery trout. They also would like to have more lakes or streams managed to provide larger than average trout. Over one-third of the survey respondents, resident and nonresident, said they would fish catch-and-release waters. However, nearly 60% of the Idaho resident fishermen said they would abandon their favorite stream if they had to release all trout caught, and over one-half would not fish a catch-and-release lake or stream for the opportunity to catch a trophy trout. If restrictions are needed to increase the size or catch rates of trout, most anglers would prefer bag restrictions. Size restrictions and tackle restrictions were the next most preferred options. Shorter season length was the least preferred option to increase size or catch rates. There was not a great deal of difference between the number of choices favoring size restrictions and tackle restrictions, indicating these two options may have been selected in tandem.

Over one-half of the survey respondents felt that fishing tournaments and contests should be regulated or prohibited. These opinions are unchanged from those expressed in 1977.

Shortly after completion of this survey, the Idaho Legislature passed legislation giving authority to the Idaho Department of Fish and Game to draft rules and regulations to govern fishing contests and tournaments.

Survey results indicated that almost one-half of the fishermen in Idaho would favor managing additional lakes or ponds to provide bass greater than 15 inches in length. Over 30% of the survey respondents had "no opinion" on this and most other warmwater-related questions.

The smallest bass acceptable to most warmwater fishermen was 12 inches in length. A 16-inch bass was the size most often considered a trophy. Fishermen did differentiate between largemouth and smallmouth bass. Both the minimum acceptable size and the trophy size of smallmouth bass was generally 2 inches shorter than that given for largemouth bass. This information would indicate general acceptance of the current bass regulations in Idaho by people fishing for largemouth bass. Smallmouth bass fishermen may tend to have a higher noncompliance rate. The Department should continue efforts to display the benefits of the current bass regulations or be prepared to have separate regulations for the two species.

The Idaho Department of Fish and Game has introduced walleye into three reservoirs in southern Idaho. Those waters selected to receive walleye are considered "safe," that is, they will not have the potential to impact other game fish populations outside the waters where introduced. This opinion survey indicates the Idaho fishermen generally agree with that policy. Almost 60% of the survey respondents would oppose further introductions of walleye if they might impact other game fish populations.

The majority of Idaho anglers that returned a survey questionnaire did not feel that additional emphasis needed to be directed towards warmwater fishery programs. The warmwater program category also received the highest percent of anglers in favor of less emphasis.

Just over three-fourths of Idaho fishermen prefer fishing for coldwater species. Trout species alone accounted for two-thirds of the anglers giving a preferred species. Rainbow trout are the single most popular species in Idaho. Over 20% of the fishermen said they preferred fishing for rainbow trout, and in excess of 80% said they fished for rainbow at least once during 1987. Anglers that prefer warmwater species have increased from 7% to almost 23% between 1977 and 1987. Anglers stating a preference for bass accounted for 10% of the survey respondents. Just over 30% of the fishing effort in 1987 was directed towards warm or coolwater species, up from 17% in 1977.

As a single body of water, more people fished the Snake River than any other water in the state. The Salmon River was the next most popular water. However, both the Snake and Salmon rivers flow across regional boundaries. Cascade Reservoir, in Region 3, was the most fished water within a single region. Other top-ten waters include the Clearwater River, the Boise River, Henry's Lake, the Big Wood River, Island Park Reservoir, Coeur d'Alene Lake, Pend Oreille Lake, the Payette River and Lucky Peak Reservoir. The Snake River within Region 3 would rank Number 4 if the Snake were to be broken out by regions. For the most part, the top ten waters have remained the same since 1977, with only changes in order.

Fishing on rivers and streams remains the most preferred "water type" for fishing, as it was in 1967 and again in 1977. Anglers also preferred bank or shore fishing, and bait was the preferred terminal tackle in this survey. Nonresident fishermen most preferred fly fishing. Boat angling with lures on lakes and reservoirs was most popular with warmwater fishermen.

Although more anglers preferred river or stream fishing over lakes and reservoirs, the fishery types had almost equal numbers of individuals that fished each water type at least once during 1987, and 54% of the days spent fishing was reportedly fished on flat water.

Idaho anglers have expressed overall satisfaction with trout programs on both lake and river systems. Fishing at high mountain lakes received the highest satisfaction rating of all programs. Anglers also expressed general satisfaction with the fishing for perch and sunfish. Anadromous fish, landlocked salmon, walleye and pike fisheries received a poor satisfaction mark from most anglers. It becomes readily apparent that time and dollars do not necessarily equate to high satisfaction marks from the public. High mountain lakes in Idaho receive the least management attention of all programs yet receive the highest rating for angler satisfaction. On the other hand, the anadromous fishery programs spend the most time and money yet receive some of the lowest ratings. General dissatisfaction with some of the warmwater programs may stem from the newness of those programs and resistance to change. The Idaho Department of Fish and Game should increase efforts to promote and introduce anglers to new programs.

When selecting "where to fish," most Idaho fishermen place a great deal of emphasis on "aesthetic" factors such as water quality and natural beauty of the area. Social factors, such as avoidance of other recreationists and avoidance of angler crowding, were also given as important "where to fish" factors. Although important, catchability of fish, the chance to catch a trophy fish, or the chance to catch a variety of fish did not weigh as heavily as the aesthetic or social factors. Material factors such as nearness to restaurants, boat launching facilities, marinas, or travel distance appeared to be relatively unimportant.

The high value anglers place on aesthetic factors could, in part, account for the high satisfaction rating given to high mountain lake fishing. It could also partially explain the lower satisfaction rating given to warmwater fisheries which occur in lowland areas close to population centers and with lower water quality than many of the trout fisheries.

"Why" anglers fish in Idaho correlates well with "where" they choose to fish. Relaxation, to enjoy nature, solitude and family togetherness are given as important reasons why people fish. Catching fish for consumption or the opportunity to catch a trophy fish does not appear important to most fishermen.

Overall, the general opinion of Idaho fishermen, as a population, has changed little over the past 20 years. The median age has remained about the same, and the most fished waters are about the same. Preferences for river and stream fishing, bank or chore fishing and the use of bait as the preferred terminal tackle has changed little. Also, anglers are asking for program emphasis for the same programs as they did in 1967 and 1977.

Based on the results of this survey, it seems appropriate for the Department to keep in place many of the current goals and policies. It would seem extremely important for the Department to increase efforts to maintain water quality and protect fish habitat. The Department should also continue efforts to protect and enhance wild trout populations. "Trophy trout" and "trophy bass" programs should be expanded but not at the total expense of anglers who prefer bait fishing. The Department of Fish and Game will also have to increase efforts to make the public aware of the sacrifices needed to accomplish various goals. Walleye and other exotic fish should not be introduced in Idaho where they may have negative impacts on other game fish populations. The Department should also increase efforts to direct angling activity to fisheries that can withstand, or need, added fishing pressure. Hatchery trout should be stocked in waters where returns to the creel can be maximized. Bait and lure fishermen which fish on lakes and reservoirs appear to place more emphasis on catch rates than the size of fish caught. Efforts should be made to increase catch rates with the hatchery product by stocking greater numbers of "fingerling-size" rainbow and allowing the lake system to produce the occasional trophy fish.

# INTRODUCTION

Legislation which formed the Idaho Department of Fish and Game also declared all wildlife within the state to be the property of the State of Idaho. That legislation directs the Department of Fish and Game to preserve, protect, perpetuate and manage that wildlife resource. If the resource manager had only the duties of resource preservation, protection and perpetuation, his or her job would be relatively simple. However, as the title implies, he or she must also manage that resource. Good management implies providing a range of experiences for different recreationists. Those recreational experiences should, within biological limitations, attempt to meet the expectations of the various user groups within the fishing community. The resource manager must balance good biology with social demands. He or she must also insure that future generations will have the opportunity to experience Idaho's wildlife resources while maximizing current user satisfaction. As the population of Idaho increases and the angling community becomes more diversified, the job of the manager will become more complicated as he or she tries to allocate limited fisheries to different users needs.

It is the purpose of this survey to provide the resource manager with the opinions, preferences and expectations of the Idaho angler. It should also provide a gauge for the manager to judge past management programs by rating angler satisfaction for each of the various fishery segments.

This survey will also continue the tradition established by Gordon (1970) and Mallet (1980) of providing the Idaho Department of Fish and Game with long-range planning tools which will help set goals, establish objectives and determine policies for the next 15-year planning period. The goals, objectives and policies established should reflect the type of management options that the public will accept and that will provide a satisfying experience to that public. The resource manager must exercise sound judgment when using opinion survey data and not manage by "vote." The biological potential of a water and the charge to protect, preserve and perpetuate should provide the bounds of good management.

## TECHNIQUES USED

### Questionnaire Content

Prior to designing the questionnaire, I asked Idaho Department of Fish and Game personnel to submit questions, topics, or areas of concern that they thought might need public direction during the next 15-year planning period. I assembled all material received and grouped the proposed "questionnaire topics" into similar subject categories. Based on the topics submitted by Department personnel, I formulated 34 questions (Appendix I) which would address the specific issues. Where possible, I used questions from previous Idaho angler surveys to meet the expected need for public input and to continue trend information started by Gordon and Mallet. I also used questions from other state fish and game agency surveys that addressed like survey needs (Mongillo and Hahn, 1988; Fletcher and King, 1988; Kinman and Hoyt, 1982). I then asked Department personnel to provide a review of the questionnaire. After incorporating second review comments, I mailed a draft of the questionnaire to Dr. Mark Snow of the Sociology Department at Boise State University for a review of questionnaire clarity and question bias.

To obtain a better understanding of the different user groups fishing Idaho waters, we compared sociological factors such as age, sex, family size and residence with management related questions. I did not attempt to assess economic status of the respondent.

### Sample Size and Mailing

In 1987, the Idaho Department of Fish and Game sold 421,727 licenses to fish Idaho waters. These included resident season fishing; resident season combination; nonresident season fishing; nonresident 10 day, 3 day, and 1 day fishing; junior season fishing; junior combination and senior combination. From the total number of licenses sold we randomly selected 28,950 (7%) names for questionnaire mailing. After mailing, the U.S. Postal Service returned 5,252 of the questionnaires as undeliverable, leaving a total sample size of 5.5%. After six weeks, we mailed a reminder letter to those individuals that had failed to return a questionnaire. We also issued a public service announcement, as a reminder, which aired in area newspapers and on radio and television stations. Anglers returned a total of 8,599 usable questionnaires, which represents a 2% sample of 1987 Idaho anglers.

We conducted this survey primarily to gather the statewide opinions and preferences of anglers fishing Idaho waters. We also wanted to make comparisons between Fish and Game Regions, between resident and nonresident anglers and between different user groups. We thought the survey should represent opinions and preferences in proportion to the type of licenses sold. To accomplish those

objectives, we determined that a minimum of 400 respondents would be needed for each data set for that information to fall within the 95% confidence limit that a particular response was within five percentage points of a true response. That level of response was achieved for all comparisons made.

## Survey Bias

In a effort to measure any potential angler response bias, we randomly selected a subsample of names of people who had failed to return a completed questionnaire. From this list of names, we conducted a telephone survey and asked selected questions from the mail survey. We then compared answers from the mail survey response and the follow-up telephone survey.

## Questionnaire Analysis

We summarized all data to provide a statewide overview. We extracted regional information by county of residence. Nonresident anglers were grouped by state of residency. All responses were correlated with sociological features such as age, sex, marital status, participation in sportsmen groups and type of terminal tackle preferred.

For the most part, I have used only data from anglers that provided a response. Where a lack of a response provides some significant insight into angler opinions and preferences, that data will be provided. Some questions offered "no opinion" as a question response. A "no opinion" response will be treated as a response and differs from "no response". In all cases, the number of respondents used to calculate a given percentage, on any one question, is expressed as the N value for that question. Some questions provided the survey recipient with the opportunity to give more than one response. In those cases, I felt it more appropriate to present the raw return data rather than a percent.

Researchers have recognized that this type of survey will provide a poor estimate of days fished. In this survey, I asked individuals to report days fished for each type of fishery they participated in. As one individual could fish for more than one type of fish at any one time, I would obtain a gross overestimate of total days fished by summing the estimates of individual fishery types. To obtain a realistic estimate of total days fished, I summed the days reported fished for each type of fishery and divided by the sum of the anglers fishing each fishery type (reported days per angler). The resultant days fished per fisherman was then multiplied by the total number of licenses sold to arrive at total days fished. The estimated number of days fished for each fishery type is given as a percent of the total. Results presented for the number of days fishing or steelhead are

comparable to the 1987 estimates presented in the Estimated 1987 Spring Steelhead Season Harvest and Effort Survey (McArthur, 1988).

## RESULTS

### Angler Profile

#### Age

The 30-39 age class had the greatest number of respondents (24.5%). The 40-49 age class and the 20-29 age class had the next highest response with 21.1% and 13.5, respectively. The 14-19 age class had the lowest response, with only 6.1% of the returns. The 1987 angler profile reflects a slightly higher percent of responses in the 30-39 age group than reported by Gordon in 1967 (Table 1) but has remained essentially unchanged over the past 20-year period. The lower percentage of juvenile anglers, from 1967 to 1987, could represent a decline in fishing interest, or a general decline in the number of juveniles.

#### Sex

Male anglers outnumbered females in the survey by a margin of 3:1 (Table 2). Nonresident males purchased 81.5% of the nonresident license sales as compared to 71.2% for resident anglers. Gordon reported a 4:1 male to female ratio in 1967. This data is also comparable to reported material from California (Fletcher, 1988) Washington (Mangillo, 1988) and Montana (Allen, 1988).

#### Residence

Idaho resident anglers purchased 63.41 of the licenses sold in Idaho during 1987 and returned 68.5% of the questionnaires. Resident combination licenses to hunt and fish made up 34.2% of the licenses sold (Table 3). Nonresident season fishing licenses made up 6% of the licenses sold, while 10-day, 3-day and 1-day licenses totaled 30%. Anglers from California, Washington, Utah, Oregon and Montana combined to make up about 75% of all nonresident fishing licenses sold in the state of Idaho during 1987 (Table 4). In 1967, 81.5% of all nonresident reporting came from those same five states (Gordon, 1970). Idaho residents, living within Idaho Department of Fish and Game Region 3 (Fig. 1), provided 38.1% of the questionnaire returns. Region 3 also has 36.3% of the state's population (Table 5). Regions 1, 2, 4, 5, and 6 returned 12.5%, 10.3%, 12.8%, 13.0%, 12.3% of the questionnaires, respectively. Results from the angler opinion survey conducted in 1978 indicate that the distribution of fishermen within Idaho has changed

Table 1. Age class of survey respondents by percent, for the total sample, resident only and nonresident only angler, 1967 and 1987.

| | | AGE CLASS (years) | | | | | |
|---|---|---|---|---|---|---|---|
| | | 14-19 | 20-29 | 30-39 | 40-49 | 50-59 | 60+ |
| Entire Sample | (87) | 6.1 | 13.5 | 24.5 | 21.1 | 16.1 | 18.7 |
| | (67) | 9.7 | 16.7 | 18.1 | 22.1 | 19.7 | 14.7 |
| Residents | (87) | 7.1 | 14.5 | 25.6 | 20.4 | 15.4 | 17.1 |
| | (67) | 12.3 | 17.3 | 17.2 | 20.8 | 19.0 | 13.4 |
| Non residents | (87) | 3.9 | 11.3 | 22.2 | 22.6 | 17.7 | 22.3 |
| | (67) | 6.3 | 15.8 | 19.3 | 23.9 | 20.5 | 15.1 |

Table 2. Sex of survey participants, by percent, for total sample, resident only and nonresident only, 1987.

| | Sample | Resident | Nonresident |
|---|---|---|---|
| Male | 74.4 | 71.2 | 81.5 |
| Female | 24.6 | 28.8 | 18.5 |

Table 3. Percent of 1987 licenses sales and percent of questionnaire returns by license type.

| License Type | Percent Sold | Percent Response |
|---|---|---|
| Resident combination* | 34.2 | 44.9 |
| Season fish# | 30.1 | 24.6 |
| Nonresident season | 6.0 | 8.9 |
| Nonresident 10-day | 5.2 | 8.6 |
| Nonresident 3-day | 11.0 | 9.6 |
| Nonresident 1-day | 13.6 | 3.5 |

*Includes regular resident combination, junior combination and senior combination.

#Includes regular season fish, junior resident fish and senior resident fish.

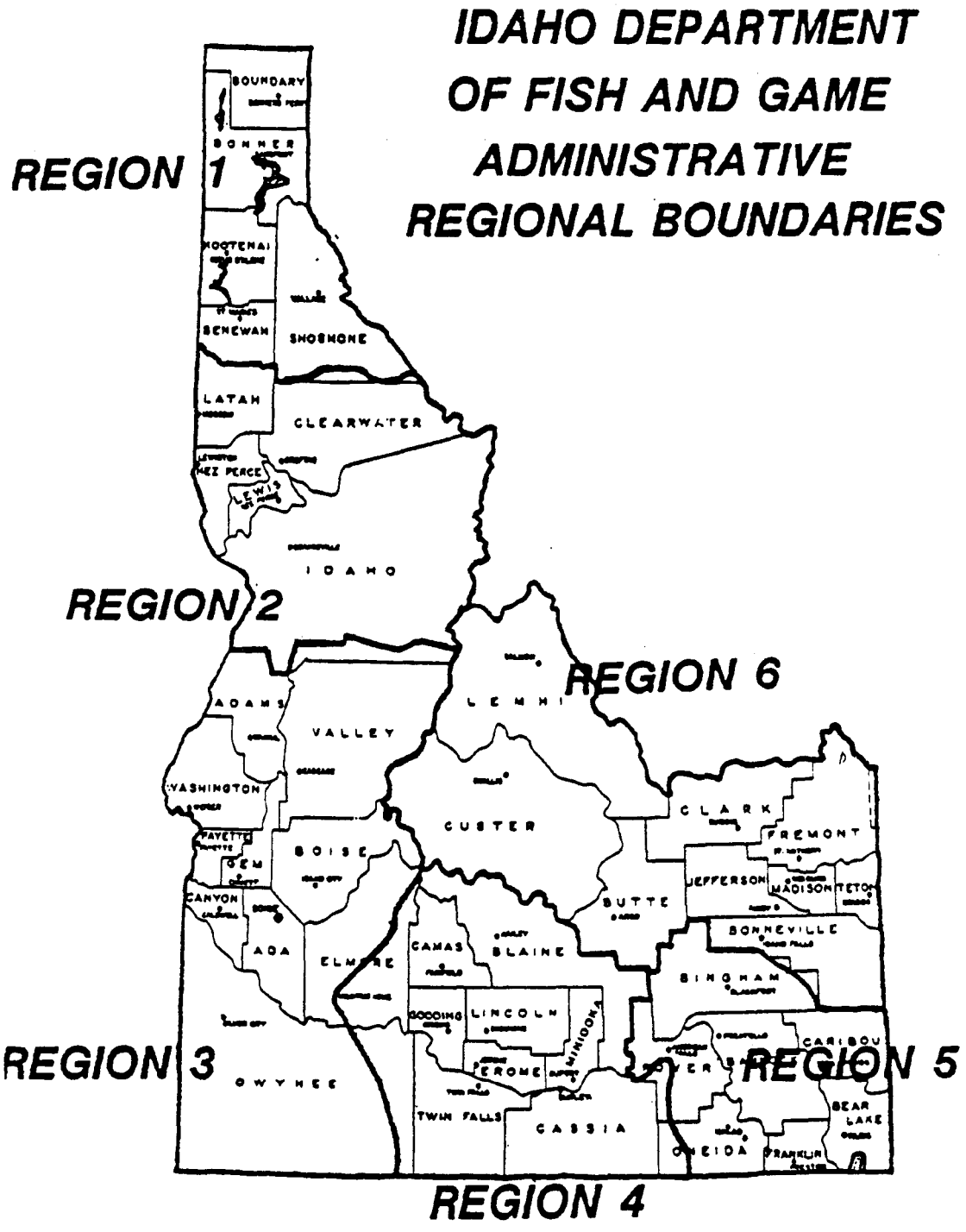



Figure 1. State of Idaho with Idaho Department of Fish and Game regional boundaries.

little over the past ten years.

**Family**

Just over one-half (54.1%) of all survey respondents stated that they had a spouse that fished in 1987. Nearly 20% reported they were not married. More resident than nonresident anglers reported they have a spouse that fished in Idaho (Fig. 2)

In Idaho, resident children under the age of 14 do not need a license to fish, nor do nonresident children under 14 when accompanied by an individual with a valid Idaho license. The number of children under the age of 14 in each household ranged from 0 to 20, with an average of 2.1 per respondent that reported having children living at home. Over 65% of the households indicated that they did not have any children under 14 living at home.

Only 30% of all households stated that they had children under 14 living at home that participated in fishing. The mean number of children that fished was 1.8 per family. A simple expansion from the number of licenses sold (421,727) minus the number of license buyers that said they did not fish (3%) will yield 629,975 total anglers fishing Idaho waters.

**Sportsmen Organizations**

Overall, only one fisherman in five indicated that he belonged to an organized sportsmen group. Resident fishermen tend to be less group-oriented than the nonresident anglers, with less than 16% that belonged to any organized sportsmen group (Table 6). Idaho Department of Fish and Game Regions 4 and 5 had the greatest percent of respondents reporting membership in a sportsmen group.

**Boat Ownership**

Thirty-five percent of the responding anglers stated that they owned a boat for fishing in 1987. Only one-fourth of the nonresident anglers said that they owned boats used for fishing, while resident `Residents of Idaho Department of Fish and Game Region 1 reported the highest percentage of respondents that own a boat used for fishing (58%). Responses by anglers from the other regions ranged from 34.2% to 39.4% that own boats used for fishing (Table 7).

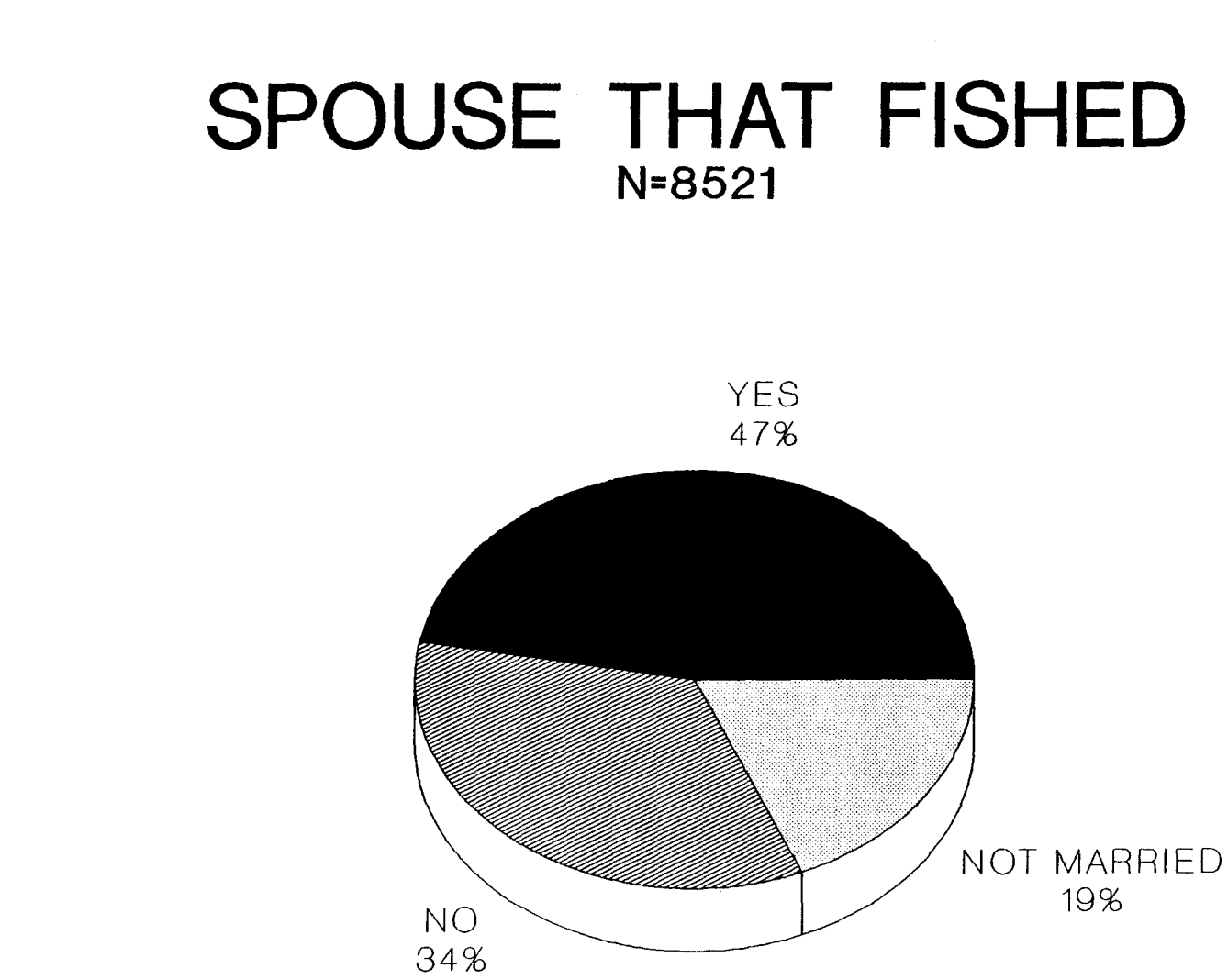



Figure 2. Percent of survey participants that did or did not have a spouse that fished in 1987.

Table 4. Percent of 1987 nonresident anglers by state of residence, for the top five states only.

| | Percent Nonresidence by State | | | | |
|---|---|---|---|---|---|
| | California | Washington | Utah | Oregon | Montana |
| 1967 | 27.2 | 25.6 | 17.6 | 6.2 | 4.9 |
| 1987 | 23.8 | 22.4 | 18.1 | 5.9 | 4.0 |

Table 5. Population statistics 1975 to 1985 and 1977 to 1987 questionnaire returns, by percent, by region of residence for Idaho resident anglers.

| | Population | | Response | |
|---|---|---|---|---|
| Region | 1975 | 1985 | 1977 | 1987 |
| 1 | 11.8 | 15.6 | 13.5 | 12.5 |
| 2 | 10.6 | 6.0 | 10.6 | 10.3 |
| 3 | 33.9 | 36.3 | 32.8 | 39.1 |
| 4 | 15.3 | 14.9 | 14.7 | 12.8 |
| 5 | 14.5 | 14.1 | 13.5 | 13.0 |
| 6 | 13.9 | 13.1 | 14.9 | 12.3 |

Table 6. Percent of survey respondents that belong to organized sportsmen organizations during 1987.

| | | Response | |
|---|---|---|---|
| Region | N | Yes | No |
| 1 | 725 | 16.0 | 84.0 |
| 2 | 596 | 16.4 | 83.6 |
| 3 | 2225 | 15.8 | 84.2 |
| 4 | 742 | 34.2 | 65.8 |
| 5 | 752 | 34.7 | 65.3 |
| 6 | 788 | 14.9 | 85.1 |
| Nonresident | 2692 | 25.2 | 74.8 |
| Total sample | 8599 | 18.7 | 25.6 |

## Management Preferences

### License Price

The majority (81%) of anglers that fish Idaho waters felt the price they paid for a license was "about right." Seventy-eight percent of the nonresident anglers stated that they felt the license price was about right, and 21Z thought the price too high (Table 8).

### Bag Limits

Over two-thirds of all respondents felt that the current trout limit of 6 fish was "just about right." Those who felt that the current limit was "too few" accounted for only 15.6% of the respondents (Table 9). In 1968, with a trout limit of 15 fish, anglers thought the limits "about right" (Gordon 1970).

Current Idaho regulations allow no more than one daily bag limit in possession while in the field or in transit. Because of the frequency of multiple-day fishing trips, some anglers have expressed a desire to retain in possession two daily bag limits from lakes and reservoirs. With the understanding that catch rates could be reduced, 55% of the responding anglers said they would not want an increased possession limit, while 31% said they would (Table 10).

### Hatchery Trout

The Idaho Department of Fish and Game raises primarily 8- to 9-inch rainbow trout for the put-and-take trout program. Based on this opinion survey, almost one-half of the anglers would prefer that the Department continue stocking primarily 8- to 9-inch rainbow trout as catchables (Table 11). However, over one-third of the respondents indicated a preference for having a few larger trout stocked, even if it means overall numbers of trout available for stocking would be reduced by one-third. Nonresident anglers seem about evenly split on the question, with 37% in favor of larger trout stocked and 38% opposed. Resident fishermen appeared more emphatic that they did not want numbers reduced in favor of a few larger trout. About 50% of the resident anglers opposed larger fish at the expense of numbers, while just over 30% favored larger hatchery trout.

Both resident and nonresident anglers seem satisfied with the quality of trout produced by the Idaho Department of Fish and Game. Overall, 56% of the survey respondents feel the quality of trout planted is either good or excellent, with 27.2% stating that the quality is either fair or poor (Table 12).

Table 7. Percent of survey respondents that reported owning a boat used for fishing during 1987, by area of residence.

| Region | N | Response | |
|---|---|---|---|
| | | Yes | No |
| 1 | 728 | 58.0 | 42.0 |
| 2 | 599 | 38.6 | 61.4 |
| 3 | 2227 | 39.3 | 60.7 |
| 4 | 740 | 34.2 | 65.8 |
| 5 | 756 | 34.7 | 65.3 |
| 6 | 786 | 37.8 | 62.2 |
| Nonresident | 2693 | 24.6 | 75.4 |
| Total sample | 8599 | 35.2 | 64.8 |

Table 8. Opinions expressed on the price paid for a license to fish Idaho waters in 1987, by area of residence.

| Region | N | Response | | |
|---|---|---|---|---|
| | | About Right | Too High | Too Low |
| 1 | 719 | 83.1 | 14.9 | 2.0 |
| 2 | 588 | 82.1 | 15.3 | 2.6 |
| 3 | 2199 | 82.9 | 13.8 | 3.3 |
| 4 | 740 | 79.7 | 17.7 | 2.6 |
| 5 | 746 | 85.4 | 11.9 | 2.7 |
| 6 | 780 | 80.6 | 16.3 | 3.1 |
| Nonresident | 2646 | 78.1 | 21.1 | 0.8 |
| Total Sample | 8599 | 81.1 | 16.7 | 2.2 |

Table 9. Opinions expressed on the number of fish allowed in the statewide 6-trout bag limit in 1987.

| Region | N | Response | | |
|---|---|---|---|---|
| | | Too Many | Too few | About Right |
| 1 | 722 | 6.5 | 20.8 | 65.1 |
| 2 | 590 | 5.1 | 29.3 | 60.0 |
| 3 | 2194 | 5.7 | 17.7 | 70.9 |
| 4 | 683 | 6.4 | 17.0 | 71.3 |
| 5 | 746 | 7.5 | 14.2 | 73.7 |
| 6 | 777 | 7.7 | 14.5 | 72.7 |
| Nonresident | 2654 | 15.3 | 9.8 | 65.5 |
| Total sample | 8419 | 9.1 | 15.6 | 68.4 |

Table 10. Percent of survey participants that would or would not support a possession limit of two daily bag limits on lakes and reservoirs, knowing that catch rates might decline.

| Response | Sample | Residence | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | NonRes | 1 | 2 | 3 | 4 | 5 | 6 |
| Yes | 30.9 | 32.6 | 29.4 | 33.1 | 33.2 | 29.0 | 26.9 | 24.1 |
| No | 55.0 | 48.9 | 58.2 | 51.0 | 55.1 | 58.5 | 62.2 | 65.0 |
| No Opinion | 14.1 | 18.5 | 12.4 | 15.9 | 11.7 | 12.6 | 10.9 | 10.9 |
| N = | 8390 | 2643 | 720 | 720 | 2191 | 739 | 741 | 771 |

Table 11. Percent of opinions expressed by survey participants regarding the conversion of a portion of the 9-inch hatchery trout production to 12-inch trout, knowing that one 12-inch trout will replace three 9-inch trout in the hatchery.

| _Response | Sample | Residence | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | NonRes | 1 | 2 | 3 | 4 | 5 | 6 |
| Yes | 34.2 | 36.7 | 26.7 | 31.4 | 36.3 | 35.2 | 33.9 | 28.4 |
| No | 45.8 | 38.7 | 54.9 | 50.7 | 46.8 | 46.4 | 47.7 | 53.2 |
| No opinion | 20.0 | 24.6 | 18.4 | 17.9 | 16.9 | 18.4 | 18.5 | 18.4 |
| N = | 8487 | 2667 | 721 | 598 | 2219 | 745 | 753 | 784 |

More nonresident fishermen gave trout stocked by the Idaho Department of Fish and Game an "excellent" rating than did resident fishermen. Region 3 respondents gave the Fish and Game hatchery product the highest ratings of resident anglers, while Region 1 gave the lowest ratings.

**Wild Trout**

The majority of Idaho anglers still feel that wild trout should receive protection (Table 13) and not be replaced with hatchery trout. Gordon (1970) reported that anglers also favored restricting the harvest of wild trout. Mallet (1980) found anglers wanted wild trout protection by a margin of 47% to 37%. Nonresident anglers in this survey favored wild trout protection by a greater margin than did resident anglers.

Regions 6 and 5 had the narrowest ratios in favor of wild trout protection, with about 47% favoring protection of wild trout and 35% favoring replacement of wild trout with hatchery trout. Region 3 anglers provided the widest ratio in favor of wild trout protection, with 54% favoring protection of wild trout and 29% preferring replacement of wild trout with hatchery fish.

Mallet reported that he may have solicited a biased response to this question by leading anglers to believe that hatchery trout could replace wild trout without. any biological impacts. This survey also could have led anglers to believe no biological impacts would occur if wild trout were replaced with hatchery trout.

**Quality/Trophy Trout**

A majority of Idaho Anglers would like to have additional waters managed to provide larger than average trout at increased catch rates, even knowing some restrictions would be needed. There remains, however, a large block of anglers that said they would not like additional restrictions to produce larger fish (Table 14). Nonresident fishermen would be more supportive of trophy trout management (61%) than would resident fishermen (51%). Region 5 fishermen expressed the greatest desire to have additional waters managed for trophy trout waters and Region 6 the least.

In 1967, 60% of the respondents from Gordon's survey indicated that "fishing for fun" (catch-and-release) was a worthwhile idea. In 1980, Mallet reported that 78% of the 1978 survey respondents stated "special regulations are a worthwhile idea," but only 42% had fished waters with special regulations. Although I did not ask the identical question, "Do you think fishing for fun is a worthwhile idea?", results presented below should be comparable to 1967 and 1978 survey returns.

Table 12. Rating of the quality of trout stocked by the Idaho Department of Fish and Game, by percent of survey respondent.

| | | Response | | | | |
|---|---|---|---|---|---|---|
| Residence | N | Excellent | Good | Fair | Poor | No Opinion |
| Sample | 8480 | 10.1 | 46.4 | 21.5 | 5.7 | 15.3 |
| NonRes. | 2658 | 13.4 | 43.9 | 12.9 | 3.0 | 26.7 |
| 1 | 724 | 4.8 | 37.2 | 28.6 | 13.1 | 16.3 |
| 2 | 598 | 7.0 | 42.8 | 28.9 | 8.0 | 13.2 |
| 3 | 2220 | 11.0 | 52.6 | 21.4 | 3.8 | 11.2 |
| 4 | 746 | 9.9 | 48.0 | 26.3 | 6.3 | 9.5 |
| 5 | 751 | 6.7 | 45.9 | 30.4 | 9.2 | 7.9 |
| 6 | 784 | 6.6 | 47.5 | 25.9 | 7.8 | 12.3 |

Table 13. Angler preference regarding protection of wild trout in Idaho streams.

| Region | Restrict Wild Trout Harvest | Replace Wild Trout | N |
|---|---|---|---|
| Sample | 55.8 | 27.4 | 8455 |
| Nonres. | 65.0 | 20.0 | 2620 |
| 1 | 53.1 | 31.0 | 719 |
| 2 | 50.9 | 29.8 | 587 |
| 3 | 53.9 | 29.1 | 2212 |
| 4 | 50.6 | 30.7 | 743 |
| 5 | 48.5 | 32.4 | 747 |
| 6 | 47.2 | 35.2 | 779 |

Table 14. Angler preferences regarding the management of additional waters to provide larger trout at increased catch rates, knowing restrictions would be needed, by percent of survey participants, by area of residence.

| | | Residence | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Response | Sample | NonRes | 1 | 2 | 3 | 4 | 5 | 6 |
| Yes | 54.2 | 61.1 | 48.3 | 48.9 | 52.5 | 51.7 | 54.1 | 47.4 |
| No | 30.5 | 21.0 | 39.2 | 36.7 | 29.1 | 32.6 | 32.7 | 38.8 |
| No-opinion | 15.3 | 17.9 | 12.5 | 14.4 | 17.0 | 15.8 | 19.1 | 18.8 |
| N = 8455 | | 2661 | 722 | 592 | 2211 | 739 | 748 | 782 |

Respondents to this survey indicate that the 1987 fishing population is equally divided on the issue of catch-and-release fishing. Just over 44% of the responding anglers said that they would continue to fish their favorite streams if they had to release all fish caught, while 50% said they would not and 5% had no opinion (Table 15). However, when asked if they would fish a stream or lake if it could provide the opportunity to catch trophy trout, even knowing all trout would have to be released, 48% said they would fish such a water, while 45% said they would not (Table 16). A greater percentage of nonresidents would favor catch-and-release fishing from their favorite stream (55%) and, if provided, the opportunity to catch larger fish (59%).

Catch-and-release fishing does not appear as attractive to most resident fishermen. Overall, only 38% of the resident anglers said they would fish their favorite stream if all trout had to be released. If they had the opportunity to catch trophy trout from a catch-and-release stream or lake, only 422 said they would fish that body of water. Region 3 anglers seemed most favorable to catch-and-release fishing. Forty-three percent of the Region 3 fishermen gave a positive reaction to catch-and-release fishing on a favorite stream, and 48% said they would fish a catch-and-release water if given the opportunity to catch a trophy trout. Fly fishermen and anglers belonging to sportsmen organizations were more inclined to support catch-and-release management than were either bait or lure fishermen. Lure fishermen did have a significantly greater number of fishermen in favor of catch-and-release fishing than bait fishermen.

Given that some type of restriction would be needed to increase the size and catch rates of trout on a given water, most Idaho anglers would prefer reduced bag limits. The data also indicates a large number of anglers would prefer artificial tackle restrictions and size restrictions. Shorter seasons were the least attractive option to increase the size of fish or to provide better catch rates. There appeared to be very little difference in the response between regions. Regions 1, 4, 5 and 6 favored reduced bag limits, with size restrictions as the second choice. Regions 2 and 3 reversed the order of the two top preferences (Table 17).

**Program Emphasis**

The majority of the respondents stated they would favor greater emphasis for all programs listed except warmwater fisheries (Table 18). Habitat protection solicited the highest percentage of anglers in favor of providing additional program emphasis (72%) and the lowest percentage favoring less emphasis (3%). More program emphasis for wild trout, hatchery production for streams and salmon and steelhead solicited high responses from all anglers. Nonresident anglers favored an even greater emphasis on wild trout and habitat protection. Greater emphasis for warmwater programs received the least number of responses (6,796), the lowest percentage favoring more program emphasis (30%), and the highest percentages in favor of less (14%) or no change (58%) in program emphasis.

Table 15. Percent of anglers that would or would not continue to fish their favorite stream if they had to release all trout caught.

| | | Residence | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Response | Sample | NonRes | 1 | 2 | 3 | 4 | 5 | 6 |
| Yes | 44.1 | 55.3 | 32.9 | 35.0 | 43.2 | 36.0 | 30.6 | 38.9 |
| No | 50.5 | 38.6 | 60.2 | 59.5 | 51.0 | 59.0 | 58.5 | 57.5 |
| No opinion | 5.4 | 6.1 | 6.9 | 5.5 | 5.8 | 4.6 | 2.9 | 3.7 |
| N = | 8515 | 2684 | 726 | 598 | 2220 | 747 | 755 | 785 |

Table 16. Percent of anglers that would or would not fish a lake or stream if it provided the opportunity to catch trophy trout, even if all fish had to be released.

| | | Residence | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Response | Sample | NonRes | 1 | 2 | 3 | 4 | 5 | 6 |
| Yes | 48.4 | 58.3 | 37.0 | 41.3 | 48.3 | 44.5 | 40.8 | 41.8 |
| No | 45.2 | 34.3 | 57.4 | 51.2 | 45.5 | 50.4 | 54.5 | 57.5 |
| No opinion | 5.4 | 7.4 | 5.7 | 7.5 | 6.3 | 6.3 | 4.9 | 5.5 |
| N = | 8483 | 2676 | 725 | 598 | 2213 | 742 | 753 | 783 |

Table 17. Types of restrictions anglers would prefer to increase the size and catch rates of trout, knowing that restriction would be needed.

| | | Residence | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Restriction | Sample | Nonres | 1 | 2 | 3 | 4 | 5 | 6 |
| Artificial tackle | 21.5 | 26.9 | 20.9 | 21.1 | 18.6 | 15.8 | 17.9 | 18.5 |
| Reduced bag limit | 31.1 | 32.1 | 28.4 | 25.7 | 31.3 | 32.2 | 30.2 | 32.6 |
| Shorter season | 13.4 | 8.9 | 16.2 | 17.4 | 14.3 | 17.8 | 15.9 | 16.0 |
| Size restriction | 26.0 | 25.6 | 27.1 | 26.2 | 27.6 | 24.7 | 25.7 | 23.7 |
| No opinion | 8.0 | 6.5 | 7.5 | 9.6 | 8.2 | 9.6 | 10.3 | 9.2 |
| N = | 14290 | 4917 | 1181 | 953 | 3669 | 1155 | 1180 | 1235 |

This information indicates little change from 1978 where Mallet reported that 69% of the reporting fishermen favored increased program emphasis on protection and enhancement of wild trout, 68% favored more emphasis on habitat protection and 61% stated a preference for major emphasis on hatchery production. Only 40% of the 1978 reporting anglers stated they would favor more emphasis on warmwater fishing.

**Fishing Contests and Tournaments**

Over one-third of all Idaho anglers would like to have fishing contests in Idaho regulated (Table 19). Twenty-two percent of the anglers felt that fishing contests should not be regulated and another 17% said contests should be prohibited. Nonresidents had a greater percentage of fishermen that favored regulating tournaments and contests (42%) than did resident anglers (35%).

**Warmwater Fish Management**

Even knowing that restrictions would be needed, 47% of the survey respondents stated they would favor a management program that would increase the catch rates for bass larger than 15 inches (Table 20). Fly fishermen and organized sportsmen were more supportive of a quality bass regulation than were lure or bait fishermen. Of those anglers that fish for bass, 38% stated the smallest largemouth bass they would keep would be 12 inches, and 33% would keep largemouth 10 inches in length (Table 21). The response changed slightly for smallmouth bass, with 40% selecting a 10-inch bass and 32% selecting 12 inches as the smallest size they would keep (Table 22). The majority of nonresident anglers picked 12 inches as the smallest size they would keep for both largemouth bass and smallmouth bass.

Most (38%) of the reporting warmwater anglers consider a largemouth bass greater than 16 inches a quality, while 24% would consider a 14-inch largemouth bass a quality size (Table 23). One-third of Idaho warmwater fishermen consider a 14-inch smallmouth bass a quality bass and another one-third would consider 16 inches as a quality size (Table 24).

In an attempt to provide increased diversity and angling opportunity, the Idaho Department of Fish and Game has introduced walleye into three Idaho reservoirs. Current Fish and Game policy limits walleye introductions to waters in which walleye will not have the opportunity to impact other fisheries or will not have access to other waters. The majority (58.6%) of Idaho anglers responding to this survey would agree with continuation of that policy and do not want walleye introduced into other waters if they could impact other fisheries. Only 18.8% of the respondents stated that they would like to have walleye expanded at the expense of resident fisheries (Table 25).

Table 18. Anglers' opinions regarding the degree of program emphasis that should be devoted to various programs.

| Programs | Program Emphasis More | Less | No Change | N |
|---|---|---|---|---|
| Hatchery trout production for lakes | 54.8 | 6.5 | 38.7 | 7502 |
| Protection and of wild trout | 67.3 | 5.1 | 27.6 | 7618 |
| Warmwater fisheries | 30.3 | 14. | 55.6 | 6796 |
| Hatchery production for streams | 60.0 | 5.1 | 27.6 | 7417 |
| Habitat protection | 71.7 | 3.1 | 25.2 | 7540 |
| Salmon and steelhead | 60.0 | 5.5 | 34.5 | 7398 |

Table 19. Anglers' opinions regarding regulation of fishing contests and tournaments.

| Option | %Total % | Resident % | Nonresident % |
|---|---|---|---|
| Should remain unregulated | 22.2 | 26.2 | 14.7 |
| Should be regulated | 38.5 | 35.3 | 42.1 |
| Should be prohibited | 17.3 | 16.7 | 20.3 |
| No opinion | 21.9 | 21.9 | 22.9 |

Table 20. Anglers' opinions regarding the management of lakes and ponds to provide bass greater than 15 inches at increased catch rates, knowing that restrictions would be needed.

| | | | Residence | | | | | |
|---|---|---|---|---|---|---|---|---|
| Response | Sample | NonRes | 1 | 2 | 3 | 4 | 5 | 6 |
| Yes | 46.9 | 47.0 | 50.4 | 50.4 | 48.9 | 44.3 | 45.4 | 38.9 |
| No | 19.5 | 12.1 | 30.8 | 23.8 | 25.4 | 19.2 | 17.7 | 17.1 |
| No opinion | 33.5 | 4.9 | 18.8 | 25.8 | 25.7 | 36.4 | 36.8 | 44.0 |
| N = | 8490 | 2675 | 725 | 601 | 2212 | 744 | 752 | 782 |

Table 21. Shortest largemouth bass, in inches, the Idaho angler would consider keeping, if not restricted.

| | Total | NonRes. | Regions | | | | | |
|---|---|---|---|---|---|---|---|---|
| Length | x | x | 1 | 2 | 3 | 4 | 5 | 6 |
| 6 in. | 1.8 | 1.0 | 1.6 | 1.3 | 1.9 | 2.0 | 3.4 | 2.7 |
| 8 " | 9.3 | 5.2 | 7.9 | 12.3 | 10.4 | 10.4 | 13.2 | 12.6 |
| 10 " | 33.3 | 26.6 | 28.2 | 39.2 | 38.1 | 35.2 | 35.7 | 32.8 |
| 12 " | 38.1 | 42.4 | 41.1 | 35.4 | 37.2 | 36.2 | 32.1 | 34.0 |
| 14 " | 17.5 | 24.8 | 21.2 | 11.8 | 12.4 | 16.2 | 15.7 | 17.9 |

Table 22. Shortest smallmouth bass, in inches, the Idaho angler would consider keeping, if not restricted.

| | Total | NonRes. | Regions | | | | | |
|---|---|---|---|---|---|---|---|---|
| Length | % | % | 1 | 2 | 3 | 4 | 5 | 6 |
| 6 in. | 2.7 | 1.8 | 2.4 | 2.9 | 2.4 | 3.5 | 4.6 | 4.8 |
| 8 | 13.9 | 10.3 | 10.2 | 15.6 | 15.2 | 15.7 | 18.8 | 16.7 |
| 10 | 40.4 | 34.1 | 36.0 | 49.1 | 46.3 | 40.4 | 40.2 | 34.3 |
| 12 | 32.3 | 38.0 | 39.3 | 26.7 | 29.2 | 29.5 | 25.2 | 32.6 |
| 14 | 10.8 | 15.9 | 12.2 | 5.8 | 7.1 | 10.9 | 11.2 | 11.6 |

Table 23. Length, in inches, of largemouth bass Idaho anglers would consider a quality size.

| | Total | NonRes. | Regions | | | | | |
|---|---|---|---|---|---|---|---|---|
| Length | % | % | 1 | 2 | 3 | 4 | 5 | 6 |
| 12 in. | 13.6 | 10.6 | 15.5 | 17.1 | 14.0 | 15.6 | 13.7 | 13.8 |
| 14 " | 24.3 | 22.1 | 22.0 | 28.8 | 26.4 | 23.7 | 22.9 | 23.7 |
| 16 " | 38.0 | 38.4 | 40.7 | 36.4 | 37.0 | 37.8 | 39.8 | 36.5 |
| 18 " | 17.1 | 19.5 | 14.8 | 14.3 | 16.2 | 16.4 | 17.6 | 19.4 |
| 20 " | 7.1 | 9.5 | 7.0 | 3.5 | 6.4 | 6.6 | 6.0 | 6.6 |

Table 24. Length, in inches, of smallmouth bass Idaho anglers would consider a quality size.

| | Total | NonRes. | Regions | | | | | |
|---|---|---|---|---|---|---|---|---|
| Length | % | % | 1 | 2 | 3 | 4 | 5 | 6 |
| 12 in. | 23.4 | 23.4 | 27.6 | 25.1 | 24.3 | 25.5 | 20.8 | 13.8 |
| 14 " | 34.7 | 33.6 | 33.2 | 40.0 | 33.8 | 30.5 | 32.5 | 23.7 |
| 16 " | 30.2 | 30.5 | 28.3 | 27.4 | 31.0 | 30.5 | 32.7 | 36.5 |
| 18 " | 9.8 | 8.8 | 6.9 | 5.5 | 8.3 | 9.5 | 10.1 | 19.4 |
| 20 " | 4.9 | 3.6 | 4.1 | 2.1 | 2.6 | 4.0 | 4.0 | 6.6 |

Table 25. Anglers' opinions regarding the expansion of walleye, in percent, by area of residence.

| | | Residence | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Response | Sample | NonRes | 1 | 2 | 3 | 4 | 5 | 6 |
| Yes | 18.8 | 12.9 | 27.8 | 24.2 | 23.2 | 17.6 | 19.1 | 15.0 |
| No | 58.6 | 59.2 | 56.1 | 56.2 | 57.0 | 64.5 | 57.9 | 60.2 |
| No opinion | 22.6 | 27.9 | 16.1 | 19.6 | 19.8 | 17.9 | 23.0 | 24.8 |
| N = | 8380 | 2624 | 722 | 591 | 2188 | 737 | 741 | 774 |

Table 26. Anglers' opinions regarding increased fishing information from the Idaho Department of Fish and Game, in percent, by area of residence.

| | | Residence | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Response | Sample | NonRes | 1 | 2 | 3 | 4 | 5 | 6 |
| Yes | 55.3 | 55.0 | 50.8 | 49.6 | 56.9 | 58.5 | 60.4 | 52.2 |
| No | 31.1 | 25.0 | 38.5 | 37.8 | 33.1 | 29.4 | 29.2 | 37.7 |
| No opinion | 13.6 | 20.0 | 10.8 | 12.7 | 10.1 | 12.1 | 10.5 | 10.1 |
| N = 8397 | | 2632 | 723 | 593 | 2197 | 737 | 741 | 771 |

Table 27. Most preferred species of fish in percent of the sample total, 1987.

| Coldwater=77.4 | | Warmwater=22.6 | |
|---|---|---|---|
| Species | % | Species | % |
| Rainbow trout | 20.8 | Any Bass | 7.1 |
| Any trout | 13.2 | Crappie | 3.2 |
| Cutthroat trout | 11.9 | Perch | 2.8 |
| Steelhead trout | 7.2 | Catfish | 3.0 |
| Brook trout | 6.6 | Largemouth bass | 1.9 |
| Brown trout | 6.5 | Walleye | 1.6 |
| Kokanee | 3.6 | Smallmouth bass | 1.4 |
| Anadromous chinook | 2.3 | Bluegill | 0.9 |
| Lake trout | 1.8 | Pike | 0.5 |
| Bull trout | 1.3 | Other species | 0.2 |
| Coho | 1.0 | | |
| Other species | 1.2 | | |

Throughout the survey, a consistent 30-35% of the respondents gave a "no opinion" response to "warmwater" fishery-related questions. This would seem to indicate that, at a minimum, about 30% of the responding anglers did not participate in any warmwater program.

### Public Information

During the previous 15-year planning period, the Idaho Department of Fish and Game has had a policy against "hot spotting." That is, we would not direct angler effort for fear of revealing the favorite spot of another fisherman or increasing effort to the point where the quality of fishing was impacted. Results from this survey, however, indicates that anglers would like the Idaho Department of Fish and Game to place some additional effort into providing better informational tools to the angler (Table 26). Also, about one-third of the state's fishermen came from outside the state of Idaho and spent less than ten days fishing Idaho waters; those fishermen need some direction if they hope to have an enjoyable experience. Information and education efforts should be directed towards "general" information or towards warmwater or hatchery-supported trout fisheries that can withstand or need additional fishing pressure.

## Preferences

### Preferred Species

The majority (77X) of Idaho anglers that fished in 1987 preferred fishing for coldwater species. About 23% of the anglers fished primarily for warmwater species (Table 27). Anglers preferring trout species alone made up about 65% of the survey respondents, down about 14 percentage points from 1977. Warmwater preferences increased nearly 16 percentage points during the same time period. Coldwater fishery preferences varied by region. The greatest proportion of coldwater fishermen (92%) reside in Region 6 . The lowest proportion (70%) of coldwater fishermen came from Region 1. Over 85% of the nonresident anglers prefer catching coldwater species.

Rainbow trout were by far the most preferred species, with any trout and cutthroat trout the next most desired. Preferences for largemouth bass, smallmouth bass and any bass totaled 10% of the survey respondents. Steelhead and anadromous salmon were the species preferred by 7% and 2% of the responding anglers, respectively. Rainbow trout were the most preferred species in Regions 5, 4, 6 and with nonresident anglers (Table 28).

Cutthroat trout and rainbow trout were the most preferred species in Region 1. Anglers in Region 3 most preferred any trout and rainbow trout, while Region 2 anglers preferred steelhead, cutthroat trout,

Table 28. Most preferred species of fish in percent by area of residence, 1987.

| Species | Residence 1 | 2 | 3 | 4 | 5 | 6 | NR |
|---|---|---|---|---|---|---|---|
| Anadromous chinook | 1.6 | 1.5 | 2.1 | 2.7 | 1.7 | 2.2 | 3.4 |
| Brook trout | 5.3 | 6.0 | 4.4 | 6.4 | 10.0 | 11.6 | 6.7 |
| Brown trout | 1.8 | 1.7 | 2.2 | 5.7 | 7.8 | 13.0 | 8.7 |
| Bull trout | 2.3 | 2.2 | 1.2 | 1.0 | 0.7 | 1.2 | 1.3 |
| Coho | 1.0 | 0.9 | 1.8 | 1.0 | 0.6 | 0.8 | 0.7 |
| Cutthroat trout | 14.0 | 15.0 | 5.4 | 5.4 | 18.7 | 12.3 | 14.1 |
| Kamloop trout | 0.7 | - | - | - | - | - | 1.5 |
| Kokanee salmon | 10.7 | 8.0 | 2.5 | 0.7 | 0.8 | 1.5 | 3.7 |
| Lake trout | 2.3 | 0.7 | 1.3 | 1.4 | 2.5 | 2.4 | 2.2 |
| Landlockei chinook | 1.0 | - | 0.3 | 0.4 | 0.4 | 0.3 | 0.2 |
| Rainbow trout | 13.4 | 13.8 | 16.3 | 22.0 | 25.6 | 30.6 | 24.8 |
| Steelhead | 4.0 | 18.8 | 5.6 | 7.7 | 5.7 | 8.9 | 6.9 |
| Any trout | 10.9 | 11.0 | 19.3 | 19.7 | 10.9 | 6.1 | 10.4 |
| Whitefish | 0.2 | 0.2 | 0.5 | 0.2 | 0.3 | 0.4 | 0.2 |
| Sturgeon | | 0.8 | 0.5 | 0.4 | | 0.1 | 0.3 |
| Any Bass | 10.8 | 8.7 | 10.8 | 5.9 | 4.9 | 2.2 | 5.0 |
| Bluegill | 0.5 | 0.2 | 0.9 | 2.3 | 1.8 | 1.0 | 0.5 |
| Catfish | 1.3 | 2.3 | 6.7 | 4.4 | 1.2 | 0.8 | 1.3 |
| Crappie | 4.9 | 1.0 | 7.9 | 1.8 | 0.5 | 0.5 | 1.4 |
| Largemouth bass | 3.7 | 1.7 | 2.1 | 1.2 | 1.4 | 0.9 | 2.0 |
| Perch | 4.1 | 1.5 | 4.6 | 5.5 | 2.3 | 1.2 | 1.1 |
| Pike | 2.8 | 0.5 | 0.2 | - | 0.3 | 0.2 | 0.4 |
| Smallmouth bass | 0.8 | 2.8 | 2.5 | 0.4 | 0.4 | 0.4 | 1.1 |
| Walleye | 1.8 | 0.9 | 1.1 | 3.7 | 1.3 | 1.1 | 1.8 |
| N = | 733 | 604 | 1977 | 752 | 761 | 792 | 2714 |

rainbow trout and any trout. Regions 1 and 3 had the greatest percent of reporting anglers that stated a preference for warmwater species in general.

During 1987, 84% of the anglers responding to the survey indicated they had fished for rainbow trout at least once during the year. The next most fished for species were cutthroat trout, brook trout, brown trout and lake trout. Largemouth bass and smallmouth bass were the most fished for warmwater species, with 22% of all anglers having fished for each of them at least once (Table 29).

**Preferred Water**

The Snake River is, by far, the most fished water in the state of Idaho, with 10% of the survey respondents placing it as one of the three most fished waters. The Salmon River, Cascade Reservoir, the Clearwater River and the Boise River were the next most frequently fished waters (Table 30). Cascade Reservoir, the Clearwater River and the Boise River were the most fished waters contained within a single region. Mallet (1980) reported that anglers fishing Idaho waters during 1977 also named the Snake River as the most fished body of water. They also named Cascade Reservoir as the most fished body of water within a single region.

Coeur d'Alene Lake and Pend Oreille Lake drew the largest number of fishermen from Region 1 (Table 31). In Region 2, anglers most frequently fished the Clearwater River, Dworshak Reservoir and the Snake River. Cascade Reservoir, the Snake River and the Boise River were the most frequently fished waters in Region 3. Anderson Ranch Reservoir on the Boise River received almost 3% of the Region 3 angling use, yet is managed by Region 4. Anglers in Region 4 listed the Snake River and Magic Reservoir as the most fished by those residents. The Salmon River was preferred by almost 8% of Region 4 anglers. Within Region 5, the Snake River, American Falls Reservoir and the Blackfoot River and Blackfoot Reservoir appear as the most fished waters. Five of the top ten waters, as given by anglers in Region 5, lie outside that region. Island Park Reservoir, Palisades Reservoir and Henry's Lake lie in Region 6, and the Big Wood River is in Region 4. Anglers in Region 6 preferred fishing the Snake River, the Salmon River and Island Park Reservoir. Nonresident anglers fished primarily on the Snake river, the Salmon River, the Henry's Fork of the Snake River, Henry's Lake and Pend Oreille Lake.

**Preferred Water Type**

Anglers that fished rivers and streams at least once made up 45% of the survey respondents, as compared to 41% for lakes and reservoirs and 14% for high mountain lakes. Rivers and streams drew the largest number of coldwater fishermen, while warmwater fishermen were attracted primarily to lakes and reservoirs. Fishing for rainbow trout had the

Table 29. Percent of anglers returning survey questionnaires that fished of each species at least once during 1987.

| | | Percent of Reporting Anglers | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Non- | Regions | | | | | |
| SPECIES | Total | Res. | 1 | 2 | 3 | 4 | 5 | 6 |
| Perch | 21.3 | 9.2 | 44.3 | 9.4 | 32.8 | 32.3 | 19.2 | 9.6 |
| Bluegill/pumpkinseed | 13.4 | 6.6 | 16.6 | 7.6 | 21.4 | 17.3 | 18.8 | 6.6 |
| Crappie | 19.7 | 8.5 | 45.6 | 13.6 | 40.2 | 11.4 | 4.3 | 3.9 |
| Smallmouth bass | 22.3 | 11.9 | 23.2 | 39.6 | 40.8 | 17.7 | 10.5 | 7.1 |
| Largemouth bass | 22.6 | 13.9 | 46.3 | 21.9 | 34.8 | 15.8 | 18.7 | 6.6 |
| Walleye | 4.2 | 3.1 | 3.1 | 1.3 | 3.3 | 15.3 | 5.8 | 1.9 |
| Pike | 3.1 | 2.5 | 17.7 | 4.3 | 1.0 | 0.8 | 0.5 | 1.0 |
| Steelhead trout | 19.5 | 12.7 | 15.8 | 50.3 | 19.8 | 18.9 | 17.0 | 24.4 |
| Anadromous chinook | 2.9 | 1.8 | 3.1 | 3.0 | 4.0 | 3.7 | 3.0 | 2.0 |
| Landlocked chinook | 6.0 | 4.2 | 17.5 | 4.8 | 6.8 | 4.0 | 3.9 | 4.3 |
| Cutthroat trout | 49.8 | 49.7 | 66.3 | 56.3 | 33.1 | 33.0 | 71.6 | 72.6 |
| Rainbow trout | 83.9 | 80.1 | 76.5 | 78.6 | 86.4 | 90.3 | 89.2 | 89.1 |
| Brook trout | 46.3 | 39.4 | 46.4 | 42.7 | 43.6 | 45.4 | 64.7 | 64.0 |
| Bull trout | 17.1 | 13.1 | 23.9 | 24.8 | 20.5 | 14.1 | 14.9 | 16.4 |
| Brown trout | 30.6 | 34.2 | 19.2 | 8.6 | 19.4 | 38.3 | 48.0 | 53.4 |
| Lake trout | 23.7 | 17.6 | 29.6 | 19.0 | 25.1 | 28.3 | 32.3 | 32.8 |
| Kokanee | 2i..5 | 16.7 | 51.4 | 33.6 | 23.4 | 11.8 | 12.5 | 23.0 |
| Catfish | 18.8 | 7.3 | 19.7 | 17.7 | 38.9 | 25.3 | 9.5 | 4.3 |
| Sturgeon | 3.1 | 1.8 | 1.9 | 7.3 | 5.1 | 4.3 | 0.9 | 1.0 |
| Whitefish | 9.7 | 6.2 | 12.4 | 12.1 | 11.5 | 6.4 | **9.9** | 15.5 |
| Nongame | 13.8 | 1.6 | 3.6 | 4.0 | 5.7 | 4.3 | 6.7 | 2.8 |

Table 30. The ten most frequently fished waters from throughout the state of Idaho as given by survey respondents for 1987.

| Water | % | Region |
|---|---|---|
| Snake River | 10.3 | 2,3,4,5,6 |
| Salmon River | 5.1 | 2,3,6 |
| Cascade Reservoir | 3.7 | 3 |
| Clearwater River | 2.6 | 2 |
| Boise River | 2.5 | 3 |
| Henry's Lake | 2.5 | 6 |
| Big Wood River | 2.4 | 4 |
| Island Park Res. | 2.1 | 6 |
| Coeur D'Alene Lake | 2.1 | 1 |
| Pend Oreille Lake | 2.1 | 1 |
| Payette River | 2.1 | 3 |
| Lucky Peak Res. | 2.0 | 3 |

N = 8599

Table 31. Most frequently fished waters as given by survey respondents for area of residence during 1987.

| Region 1 | | Region 2 | |
|---|---|---|---|
| Water | % | Water | % |
| Couer D'Alene Lake | 12.4 | Clearwater River | 19.3 |
| Pend Oreille Lake | 10.7 | Dworshak Reservoir | 10.8 |
| Couer D'Alene River | 6.5 | Snake River | 10.2 |
| Hayden Lake | 5.6 | North Fork Clearwater | 5.4 |
| St. Joe River | 5.2 | Salmon River | 5.2 |
| Spirit Lake | 4.1 | Spring Valley Reservoir | 4.3 |
| Hauser Lake | 3.6 | Lochsa River | 2.7 |
| Fernan Lake | 3.4 | Winchester Lake | 2.7 |
| Priest Lake | 2.5 | Selway River | 2.3 |
| Clearwater River | 2.2 | Couer D'Alene Lake | 2.3 |
| N=733 | | N=571 | |

| Region 3 | | Region 4 | |
|---|---|---|---|
| Water | % | WATER | % |
| Cascade Reservoir | 11.5 | Snake River | 16.5 |
| Snake River | 10.8 | Magic Reservoir | 12.9 |
| Boise River | 7.7 | Big Wood River | 11.4 |
| Lucky Peak Reservoir | 6.4 | Salmon River | 7.9 |
| Brownlee Reservoir | 4.3 | Salmon Falls Creek Res. | 2.6 |
| Salmon River | 4.3 | Morman Reservoir | 2.5 |
| Lake Lowell Res. | 3.4 | Silver Creek | 2.3 |
| C.J. Strike Res. | 3.3 | Roseworth Reservoir | 2.2 |
| Anderson Ranch Res. | 2.8 | American Falls Res. | 2.1 |
| South Fork Boise | 2.8 | | |
| N=2079 | | N=683 | |

| Region 5 | | Region 6 | |
|---|---|---|---|
| Water | % | Water | % |
| Snake River | 11.8 | Snake River | 13.4 |
| American Falls Res. | 6.6 | Island Park Res. | 7.9 |
| Blackfoot River | 6.5 | Salmon River | 7.7 |
| Blackfoot Reservoir | 6.4 | Palisades Reservoir | 7.5 |
| Island Park | 4.6 | Henry's Lake | 5.3 |
| Palisades Reservoir | 3.7 | South Fork Snake River | 4.9 |
| Henry's Lake | 3.7 | Ririe Reservoir | 4.5 |
| Salmon River | 3.2 | Teton River | 4.4 |
| Hawkins Reservoir | 2.4 | Henry's Fork of Snake | 4.1 |
| Big Lost River | 2.1 | Big Lost River | 2.0 |
| N=699 | | N=745 | |

Table 31. Continued.

| Nonresident Water | % | Region |
|---|---|---|
| Snake River | 9.2 | 2,3,4,5,6 |
| Salmon River | 6.3 | 2,3,6 |
| Henry's fork of Snake | 5.2 | 6 |
| Henry's Lake | 5.2 | 6 |
| Pend Oreille Lake | 3.9 | 1 |
| Clearwater River (NF) | 3.7 | 2 |
| Big Wood River | 3.6 | 4 |
| Coeur d'Alene Lake | 2.9 | 1 |
| Island Park Reservoir | 2.7 | 6 |
| Silver Creek | 2.6 | 4 |
| Boise River(MF,NF,SF) | 1.8 | 3 |
| Priest Lake | 1.8 | 1 |
| Payette River(MF,NF,SF) | 1.7 | 3 |
| Teton River | 1.2 | 6 |
| Cascade Reservoir | 1.2 | 3 |
| Dworshak Reservoir | 1.2 | 2 |
| Deep Creek | 1.2 | 7 |
| Devil Creek | 1.0 | 7 |
| Palisades Reservoir | 1.0 | 6 |
| Blackfoot Reservoir | 1.0 | 5 |
| Boise River | 1.0 | 3 |
| Magic Reservoir | 0.9 | 4 |

N=2448

largest number of fishermen attracted to each of the fishery types, with 5,342 of the 8,599 survey respondents reporting they fished for rainbow trout in rivers or streams, 4,075 fished for rainbow trout in lakes or reservoirs and 2,044 fished for rainbow in high mountain lakes (Table 32).

The most preferred water type with the Idaho angler remains streams and rivers, with 56% of the respondents preferring to fish flowing water, 37% preferring lakes and reservoirs and 6% stating a preference for high mountain lakes (Table 33). This information remains virtually unchanged from the two previous surveys. Gordon (1970) reported 56% of the anglers preferred rivers and streams, and Mallet (1980) found that about 58% of all anglers preferred to fish in rivers or streams. Nonresident anglers preferred rivers and streams by a larger amount than did the general resident angler.

**Preferred Fishing Mode**

Fishing from the shore, either from the bank or by wading, appears to be the most popular (Table 34), as well as the most preferred (Table 35), mode of fishing. Boat angling seems more popular with bass and crappie fishermen, while trout anglers seem to prefer shore or bank fishing. Only in Region 1 did boat anglers have a greater percent of the responses.

**Preferred Fishing Methods**

Of the 8,599 responding anglers, more said they preferred bait angling (37%) over lure fishing (35%) and fly fishing (28%-) (Table 36). Bait fishing also received the greatest number of responses for those that used each fishing method at least once (Table 37). The nonresident angler preferred fly fishing (42%) over lure/spin fishing (32%) and bait fishing (25%).

The telephone survey, conducted to detect any nonresponse bias, indicated that bait anglers reported at a rate lower than would be expected. However, the shift occurred towards lure fishing, not use of flies. As most lure and bait angler opinions did not differ significantly, we determined that the bias exerted by nonresponding bait fishermen did not influence the overall outcome of the survey.

## Days Fished

The 421,727 anglers that purchased a license to fish Idaho waters in 1987 expended a total of 4,491,482 days, for an average of 10.2 days per fisherman. From 1977 to 1987, the State of Idaho saw a 4% increase in license sales and a 14% increase in angler use. The average angler in 1977 spent 9.2 days fishing, as compared to 10.2 days in 1987.

Table 32. Number of survey participants that fished each water type at least once for each fish species during 1987.

| Species | Mountain Lakes | Lakes and Reservoirs | Rivers and Streams |
|---|---|---|---|
| Perch | 126 | 1666 | 217 |
| Bluegilllpumpkinseed | 0 | 1090 | 126 |
| Crappie | 0 | 1599 | 184 |
| Smallmouth bass | 0 | 1457 | 816 |
| Largemouth bass | 0 | 1749 | 454 |
| Walleye | 0 | 336 | 45 |
| Pike | 35 | 202 | 19 |
| Steelhead | 0 | 0 | 1647 |
| Anadromous chinook salmon | 16 | 62 | 179 |
| Landlocked chinook salmon | 65 | 408 | 103 |
| Cutthroat trout | 1301 | 1803 | 3146 |
| Rainbow trout | 2044 | 4075 | 5342 |
| Brook trout | 1065 | 1028 | 3388 |
| Bull trout | 383 | 539 | 1031 |
| Brown trout | 509 | 1079 | 2064 |
| Lake trout | 714 | 1565 | 410 |
| Kokanee/coho | 286 | 1659 | 277 |
| Catfish | 88 | 1003 | 956 |
| Sturgeon | 0 | 0 | 268 |
| Whitefish | 49 | 157 | 734 |
| Nongame | 37 | 193 | 242 |

Table 33. Anglers' preferred water type, in percent, by area of residence, 1987.

| Region | N | Mountain Lakes | Lake/Reservoir | Stream/River |
|---|---|---|---|---|
| 1 | 632 | 6.3 | 57.0 | 36.7 |
| 2 | 538 | 5.9 | 26.6 | 67.5 |
| 3 | 1977 | 9.4 | 43.5 | 47.1 |
| 4 | 648 | 5.1 | 42.9 | 52.0 |
| 5 | 661 | 2.9 | 37.7 | 59.4 |
| 6 | 700 | 4.7 | 29.0 | 66.3 |
| Sample | 7473 | 6.4 | 37.5 | 56.1 |
| NonRes | 2320 | 5.7 | 30.5 | 63.8 |

Table 34. Numbers of survey participants that fished each mode of fishing for each fishery segment during 1987.

| | Mode of Fishing | | | |
|---|---|---|---|---|
| Species | Shore/Wade | Boat | Float Tube | Ice Fish |
| Perch | 1094 | 926 | 119 | 370 |
| Bluegill/pumpkinseed | 738 | 517 | 199 | 57 |
| Crappie | 858 | 1125 | 181 | 40 |
| Smallmouth bass | 1176 | 1159 | 166 | 21 |
| Largemouth bass | 1054 | 1251 | 257 | 30 |
| Walleye | 120 | 273 | 19 | 15 |
| Pike | 113 | 196 | 7 | 22 |
| Steelhead | 1246 | 815 | 16 | 12 |
| Anadromous chinook | 174 | 96 | 8 | 2 |
| Landlocked salmon | 184 | 382 | 13 | 20 |
| Cutthroat trout | 3483 | 1701 | 418 | 179 |
| Rainbow trout | 5865 | 3192 | 742 | 518 |
| Brook trout | 3583 | 860 | 320 | 87 |
| Bull trout | 1184 | 496 | 86 | 30 |
| Brown trout | 2182 | 941 | 258 | 106 |
| Lake trout | 1143 | 1210 | 124 | 117 |
| Kokanee/coho | 583 | 1524 | 55 | 145 |
| Catfish | 1333 | 577 | 37 | 6 |
| Whitefish | 735 | 147 | 27 | 55 |
| Nongame | 284 | 84 | 21 | 17 |

Table 35. Anglers' preferred mode of fishing by area of residence, 1987.

| Preferred mode | Regions | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | NR |
| Shore/Wade | 39.8 | 57.9 | 54.8 | 58.2 | 62.3 | 61.7 | 59.4 |
| Boat | 58.9 | 40.6 | 38.3 | 34.7 | 32.5 | 34.5 | 36.9 |
| Float tube | 0.4 | 1.3 | 6.5 | 7.1 | 3.9 | 2.7 | 3.4 |
| Ice fish | 0.9 | 0.2 | 0.4 | 0.0 | 1.3 | 10.6 | 0.3 |
| N = | 643 | 535 | 2002 | 658 | 674 | 643 | 2359 |

Table 36. Anglers' preferred method of fishing, in percent, by area of residence, 1987.

| Method of Fishing | Regions | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | NR |
| Lure/spin | 49.5 | 44.9 | 37.5 | 28.2 | 31.2 | 27.2 | 32.0 |
| Bait | 30.0 | 34.2 | 42.2 | 50.3 | 47.2 | 46.8 | 25.2 |
| Fly | 19.2 | 20.1 | 19.7 | 21.2 | 21.0 | 25.7 | 42.2 |
| Other | 1.3 | 0.7 | 0.7 | 0.2 | 0.6 | 0.3 | 0.6 |
| N | 642 | 642 | 2005 | 662 | 670 | 709 | 2399 |

Table 37. Number of survey participants that fished each method of fishing of each fishery segment at least once during 1987.

| Fishery Type | Method of Fishing | | | |
|---|---|---|---|---|
| | Lure/Spin | Bait | Fly | Other |
| Perch | 577 | 1566 | 143 | 46 |
| Bluegill/pumpkinseed | 448 | 839 | 271 | 30 |
| Crappie | 1172 | 805 | 254 | 85 |
| Smallmouth bass | 1470 | 941 | 245 | 67 |
| Largemouth bass | 1544 | 831 | 289 | 73 |
| Walleye | 292 | 200 | 14 | 12 |
| Pike | 205 | 131 | 18 | 9 |
| Steelhead trout | 1309 | 782 | 441 | 59 |
| Anadromous chinook | 169 | 145 | 33 | 6 |
| Landlocked chinook | 385 | 248 | 84 | 28 |
| Cutthroat trout | 2503 | 2337 | 2164 | 77 |
| Rainbow trout | 4245 | 4662 | 3197 | 133 |
| Brook trout | 1938 | 2511 | 1856 | 62 |
| Bull trout | 888 | 876 | 523 | 30 |
| Brown trout | 1379 | 1487 | 1320 | 46 |
| Lake trout | 1357 | 1306 | 442 | 63 |
| Kokanee/ coho | 1402 | 1044 | 169 | 78 |
| Catfish | 271 | 1490 | 35 | 37 |
| Sturgeon | 29 | 246 | 9 | 4 |
| Whitefish | 258 | 535 | 287 | 23 |
| Nongame | 118 | 256 | 43 | 51 |

Continuing the expansion to include the nonlicense buying public, i.e. those under 14 years of age, I estimated that a total of 629,977 anglers fished Idaho water in 1987. If we can assume that the under 14 year old segment also expended 10.2 days fishing per fisherman, we would arrive at a total of 6,425,761 days fished. The 1985 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation reported an estimated total of 6,622,400 days of use.

Fishing Idaho rivers and streams for trout drew the largest number of anglers, with 26% of the total days fished. Fishing on lakes and reservoirs for trout had the next highest number of angler days expended, with 23% of the use (Table 38). People fishing for warmwater or coolwater species expended just over 30% of the total Idaho fishing days; an increase from 17% in 1977. Region 3 had the greatest percent of days fished for 12 of the 17 fishery segments listed in the 1987 survey questionnaire (Table 39). Anglers reported a greater number of days fished for landlocked salmon (Region 1), steelhead trout (Region 2), lakes and reservoirs for kokanee (Region 1), lakes and reservoirs for Pike (Region 1) and walleye (Region 4) in regions other than Region 3.

## Angler Satisfaction

Anglers expressed overall satisfaction with the more popular Idaho fisheries (Fig. 3). Fifty-two percent of the reporting anglers rated trout fishing in lakes and reservoirs as good or excellent and almost 60% rated the river and stream fishing for trout as good or better. High mountain lakes received the best marks for angler satisfaction, with 19.6% of the anglers giving an excellent rating and 61% giving a rating of good or better. Anglers seemed generally satisfied with perch and crappie/sunfish fishing also (Fig 4).

Anadromous chinook and steelhead received poor satisfaction marks (Fig 5). Most anglers felt that fishing for kokanee or coho salmon was fair to good. Fishing for landlocked chinook salmon, however, was considered poor (Fig. 6). Anglers generally gave lower satisfaction ratings to fisheries for bass, walleye and pike (Fig. 7). Fishing for whitefish, white sturgeon and "other" species rated fair to good (Fig. 8).

Given the large amounts of time and money devoted to anadromous programs and the overall success of steelhead recovery in Idaho, one might expect a higher satisfaction rating than the one observed. The poor marks might be partially explained by the poor anadromous fish returns in 1987. Low satisfaction ratings for warmwater programs could, in part, be due to programs that were relatively new in 1987 which imposed a statewide 12-inch minimum size restriction on bass. The 12-inch minimum severely restricted the number of bass that an angler could harvest.

Table 38. Number of days fished by survey participants and estimated days fished by Idaho anglers that purchased a license to fish in 1987.

| Fishery Type | Mean Days | Reported Days | Estimated days |
|---|---|---|---|
| Anadromous chinook | 5.0 | 1073 | 10,767 |
| Landlocked chinook | 8.1 | 2419 | 37,889 |
| Steelhead trout | 8.3 | 11363 | 183,640 |
| High mountain lakes | 6.5 | 10642 | 135,060 |
| Lakes and reservoirs for trout | 11.9 | 50005 | 1,163,771 |
| Lakes and reservoirs for kokanee | 9.5 | 12336 | 230,756 |
| Lakes and reservoirs for bass | 11.4 | 19992 | 447,730 |
| Lakes and reservoirs for perch | 9.3 | 12895 | 233,770 |
| Lakes and reservoirs for sunfish | 9.1 | 11320 | 201,556 |
| Lakes and reservoirs for walleye | 7.1 | 2050 | 27,133 |
| Lakes and reservoirs for pike | 6.8 | 1460 | 20,198 |
| Lakes and reservoirs for other | 11.2 | 5377 | 11,703 |
| Rivers and streams for trout | 11.8 | 57582 | 1.330,270 |
| Rivers and streams for whitefish | 7.6 | 4275 | 64,601 |
| Rivers and streams for bass | 9.4 | 7521 | 13,606 |
| Rivers and streams for other | 13.1 | 6508 | 67,963 |
| Sturgeon | 7.3 | 1484 | 210,859 |
| TOTAL | | 218,573 | 4,491,482 |

Table 39. Percent of total days fished that were expended by resident and nonresident fishermen in each region for each fishery type, 1987.

| | Residence | | | | | | |
|---|---|---|---|---|---|---|---|
| Fishery Type | NonRes | 1 | 2 | 3 | 4 | 5 | 6 |
| Anadromous chinook | 26.4 | 11.7 | 6.1 | 32.1 | 8.7 | 6.8 | 8.2 |
| Landlocked chinook | 15.3 | 37.8 | 3.0 | 28.6 | 7.4 | 3.8 | 4.1 |
| Steelhead | 18.3 | 4.8 | 27.0 | 20.0 | 6.2 | 6.5 | 17.2 |
| High mountain lakes | 13.3 | 17.0 | 7.1 | 35.6 | 7.4 | 8.4 | 11.2 |
| Lakes/res for trout | 16.1 | 11.4 | 5.8 | 33.9 | 12.2 | 12.3 | 8.3 |
| Lakes/res for kokanee | 22.8 | 29.8 | 10.1 | 20.7 | 3.2 | 3.2 | 10.2 |
| Lakes/res for bass | 13.6 | 21.0 | 5.6 | 44.7 | 5.7 | 7.2 | 2.2 |
| Lakes/res for perch | 10.5 | 24.7 | 2.6 | 39.0 | 13.2 | 6.9 | 3.0 |
| Lakes/res for sunfish | 10.5 | 23.9 | 2.9 | 52.9 | 4.8 | 3.4 | 1.6 |
| Lakes for walleye | 14.9 | 5.9 | 0.7 | 20.3 | 36.3 | 16.0 | 5.9 |
| Lakes/res for pike | 15.8 | 63.4 | 8.9 | 7.9 | 1.4 | 1.6 | 1.0 |
| Lakes/res for other | 13.5 | 12.4 | 5.3 | 42.0 | 10.0 | 8.3 | 8.5 |
| Riv/str for trout | 17.5 | 8.0 | 7.1 | 27.4 | 12.9 | 11.7 | 15.4 |
| Riv/st for whitefish | 11.9 | 12.8 | 8.6 | 35.7 | 4.1 | 10.0 | 16.9 |
| Riv/str for bass | 11.2 | 5.8 | 16.4 | 54.7 | 7.7 | 2.0 | 2.2 |
| Riv/str for other | 7.1 | 6.1 | 4.4 | 56.1 | 15.0 | 3.9 | 7.4 |
| sturgeon | 13.1 | 4.2 | 8.1 | 61.6 | 11.5 | 0.6 | 1.2 |

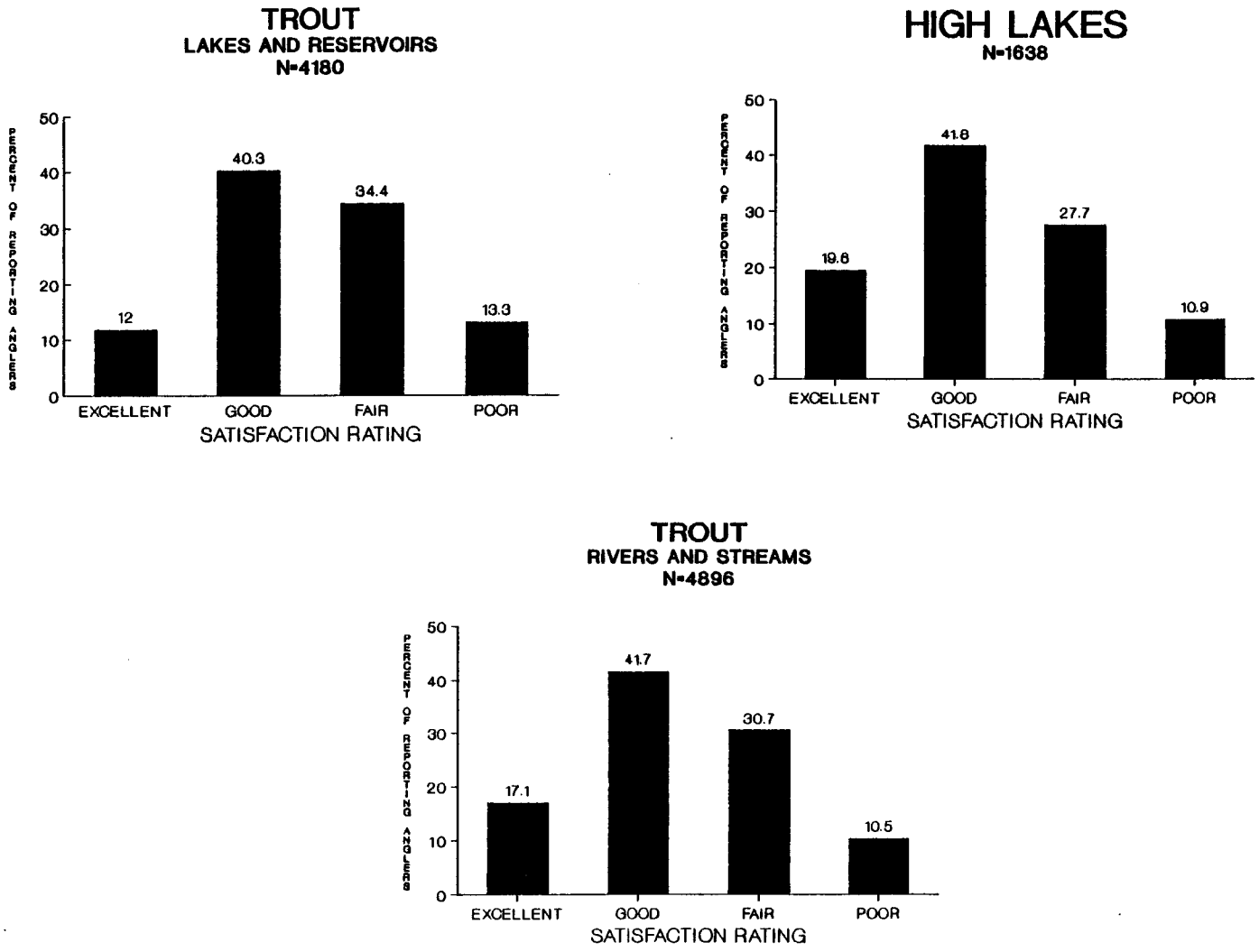



Figure 3. Angler satisfaction with lakes and reservoirs for trout, high lakes, and rivers and streams for trout fishery segment by percent of reporting anglers, 1987.

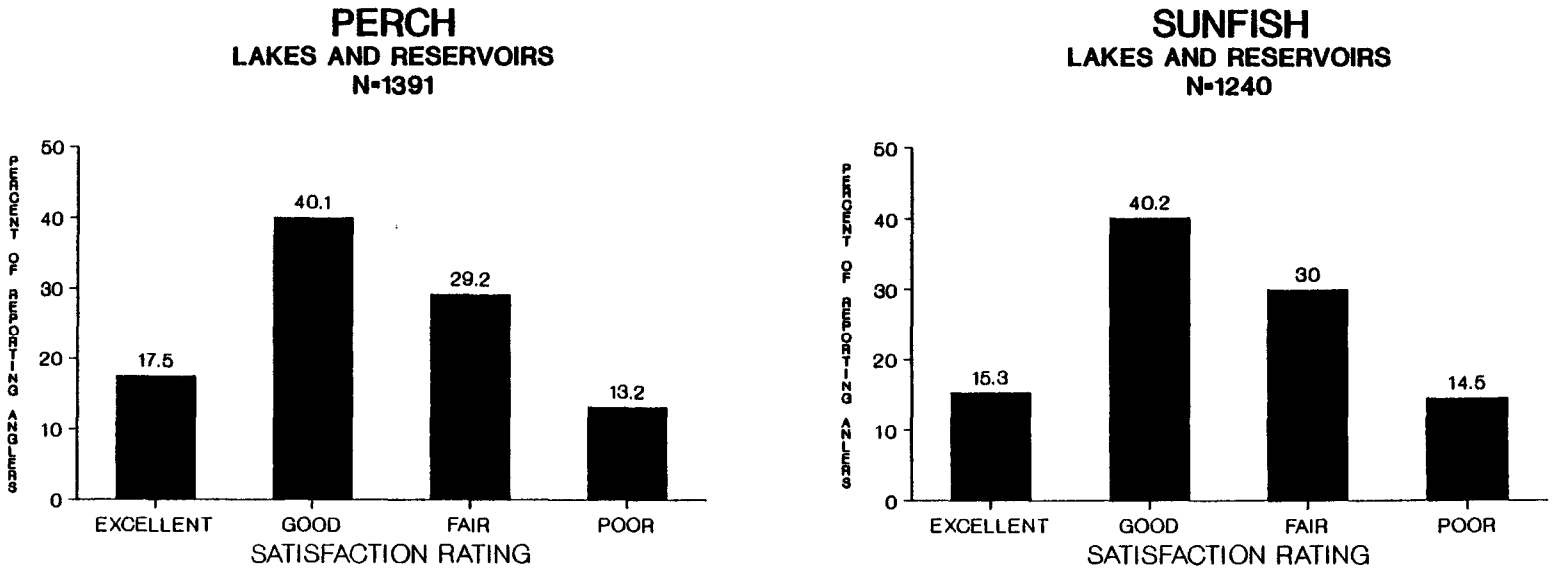
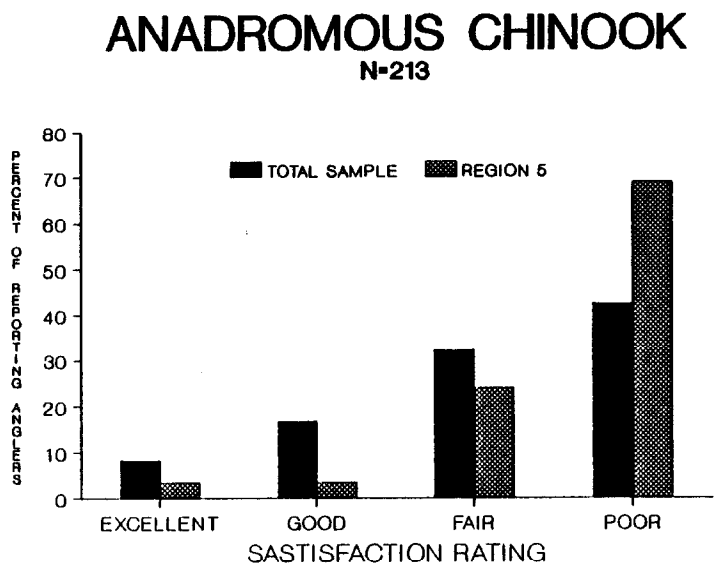



Figure 4. Angler satisfaction with lakes and reservoirs for perch and sunfish by percent of reporting anglers, 1987.



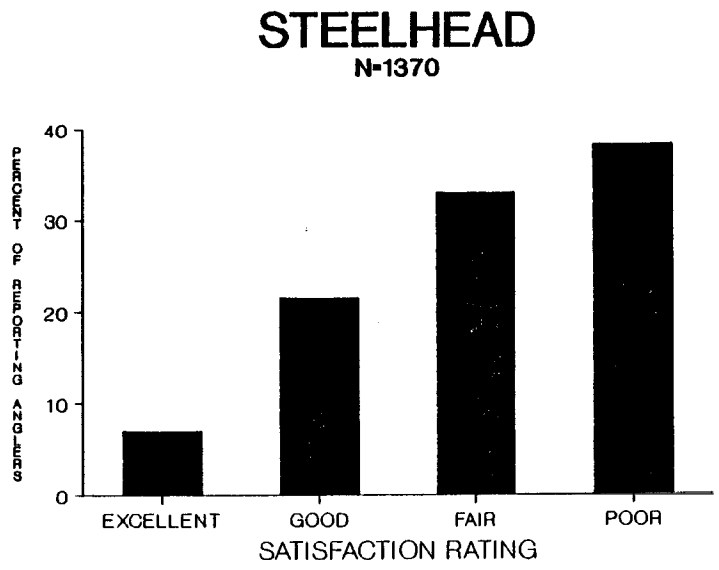
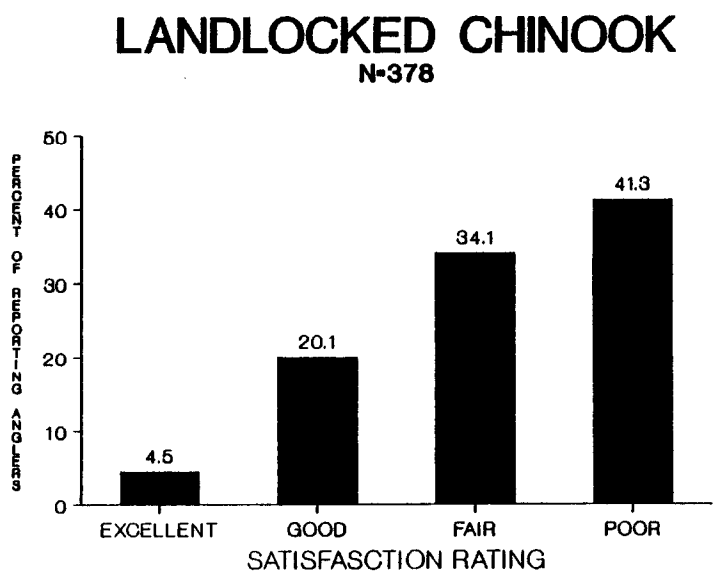




Figure 5. Angler satisfaction with anadromous chinook and steelhead trout by percent of reporting anglers, 1987.



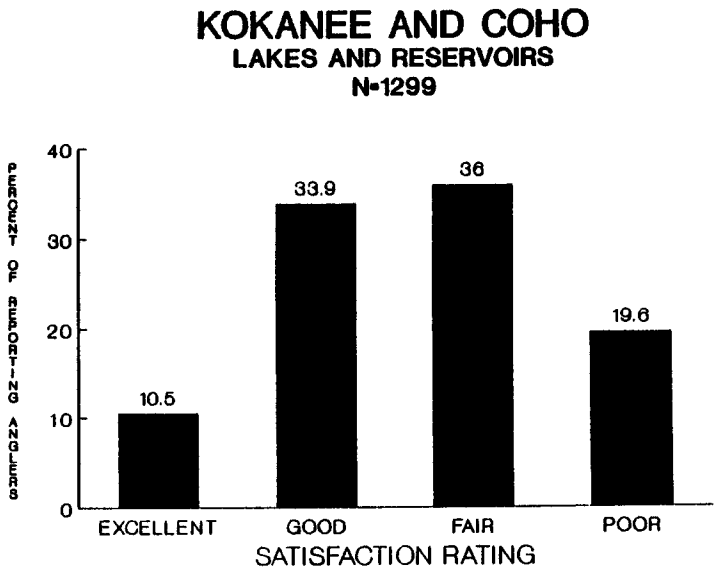




Figure 6. Angler satisfaction with landlocked chinook and kokanee - coho by percent of reporting anglers, 1987.

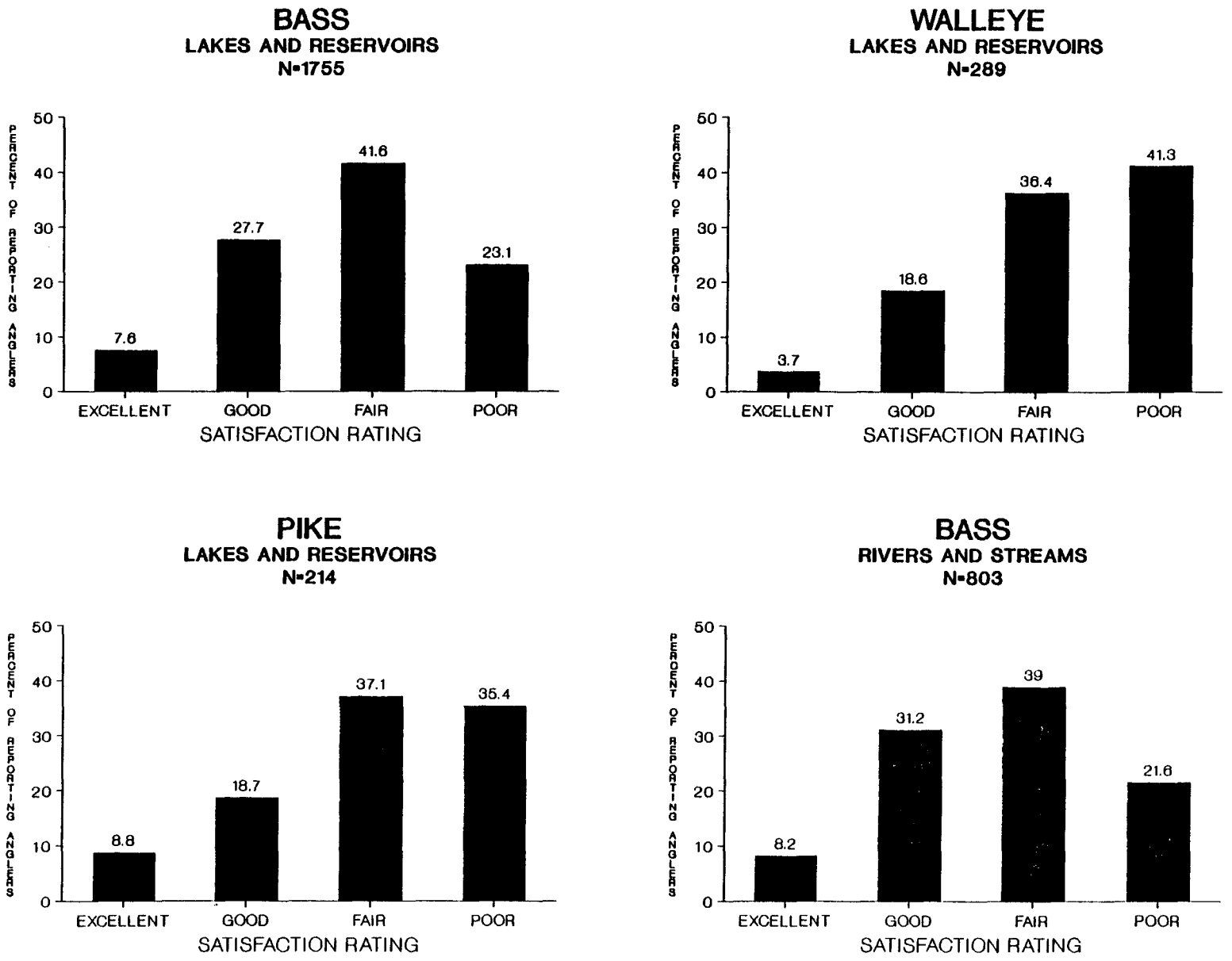



Figure 7. Angler satisfaction with lakes and reservoirs for bass, walleye, pike, and rivers and streams for bass by percent of reporting anglers, 1987.

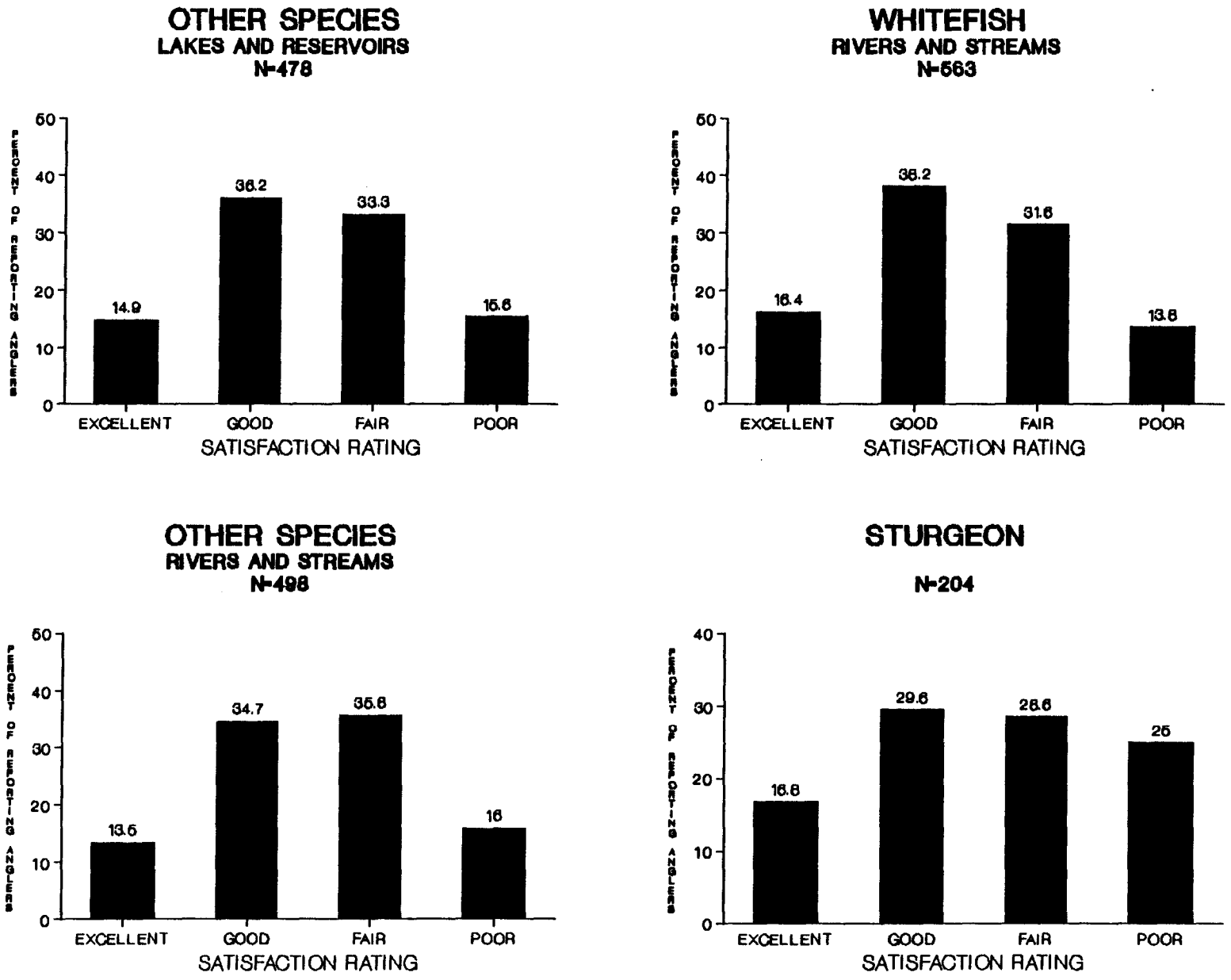



Figure 8. Angler satisfaction with whitefish, white sturgeon and other species fishery segment, by percent of reporting anglers for 1987.

## Where to Fish Factors

Idaho fishermen have placed a high value on "aesthetic" and "social" factors when selecting "where" to fish. Items such as water quality and beauty of the area had high percentages of survey respondents that gave crucial, very important, or important ratings (Fig. 9). Water quality had the greatest percentage of crucial or very important responses in determining where anglers fish. Social factors such as avoidance of angler crowding and avoidance of other types of recreationists are also *very* important factors that determine where anglers fish (Fig. 10). Responding anglers placed only moderate levels of importance on catch rates of fish (Fig. 11), the chance to catch trophy fish, or the chance to catch a variety of fish. However, the presence of a favorite fish or opportunity to catch wild fish did seem important (Fig. 12). Responses from Region 5 indicated that a larger percentage of anglers from that region placed a greater value on catching trophy fish than did fishermen from other regions, which may explain why such a large number of those anglers travel to other regions to fish.

Material factors such as availability of marina facilities, boat launching facilities, restaurants or bait and tackle shops (Fig. 13), or travel distance from home or cabin appear to be relatively unimportant to the angler fishing Idaho waters (Fig. 14). The angler fishing Idaho waters does appear to place some importance on items such as familiarity with the area, accessibility and the opportunity for bank fishing (Fig. 15).

## Why Anglers Fish

To enjoy nature and relaxation surfaced as the two very important reasons "why" anglers fish in Idaho (Fig. 16). To catch fish was also given as an important reason for fishing, while catching fish for consumption and the chance to catch a trophy fish did not rate extremely high (Fig. 17). Fishing competitively was not an important item in determining "why" anglers fish (Fig. 18), nor did fishing to improve skills or fishing for exercise. Social values such as family togetherness and companionship appeared to be relatively important while the opposite, "to be alone," was important to only a few (Fig. 19).

The importance placed on aesthetic factors may account for the high satisfaction rating given to high lake fishing and, to some degree, fishing for salmonids. The natural setting and outstanding water quality found in most salmonid fisheries would tend to appeal to those seeking an aesthetic experience. On the other hand, many most warmwater programs are located in lowlands with deteriorated water quality and close to population centers.

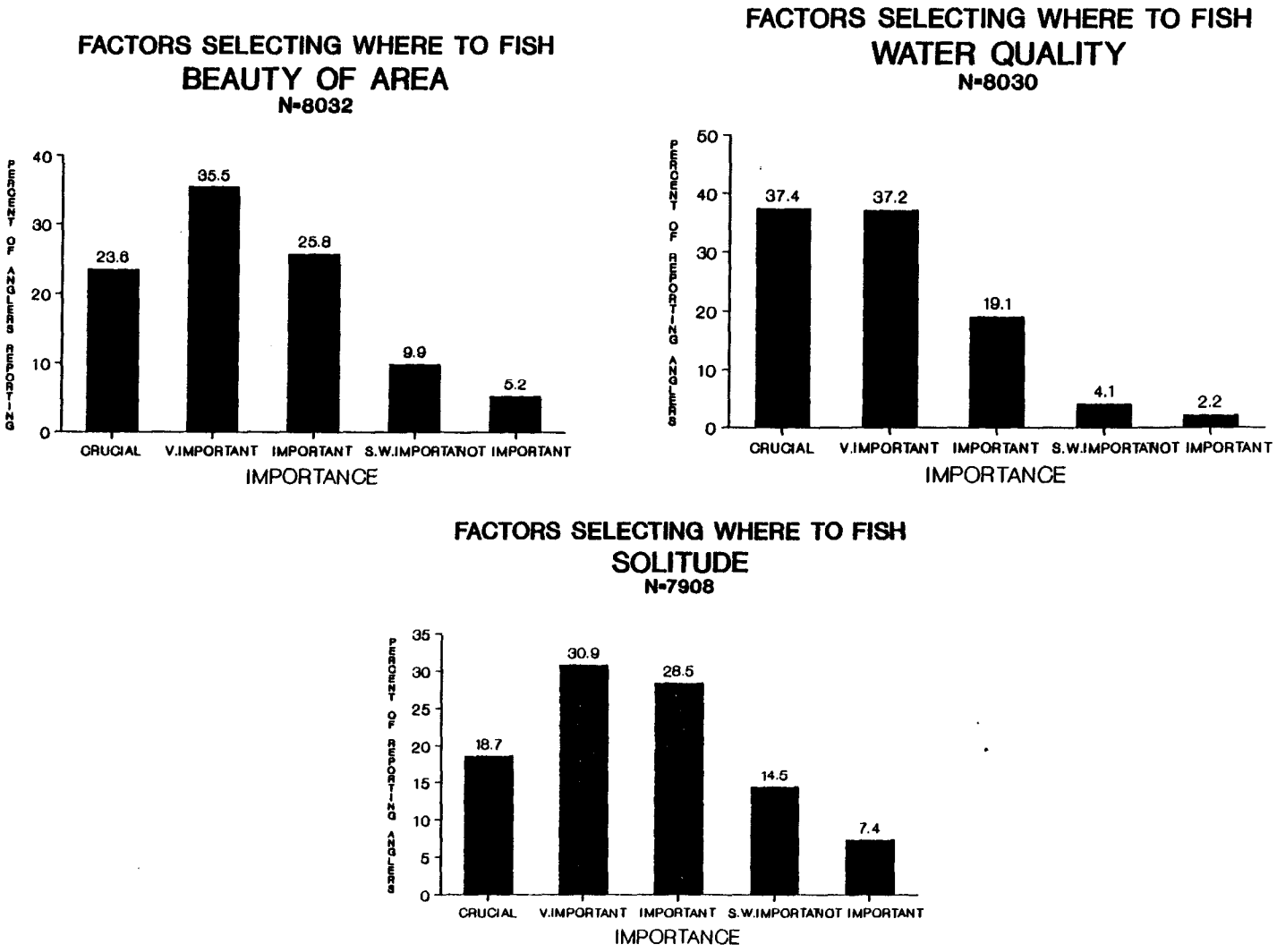
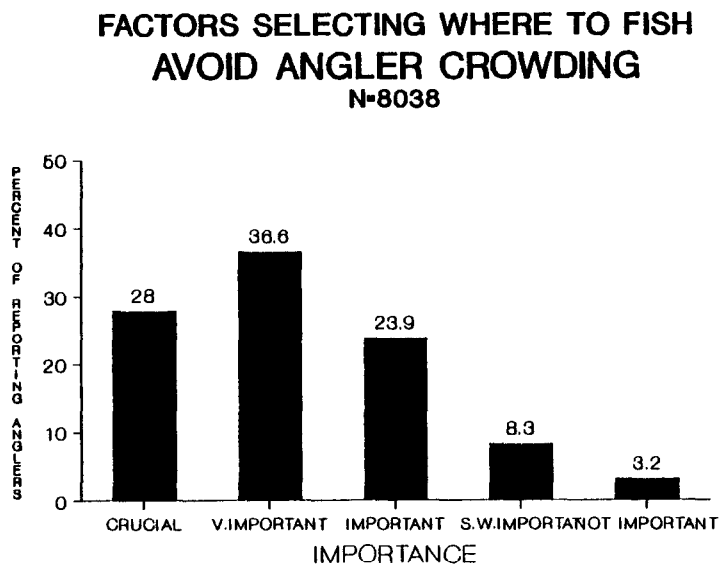



Figure 9. Importance anglers place on the factors "beauty of area," "water quality," and "solitude" in selecting where to fish by percent of reporting anglers, 1987.



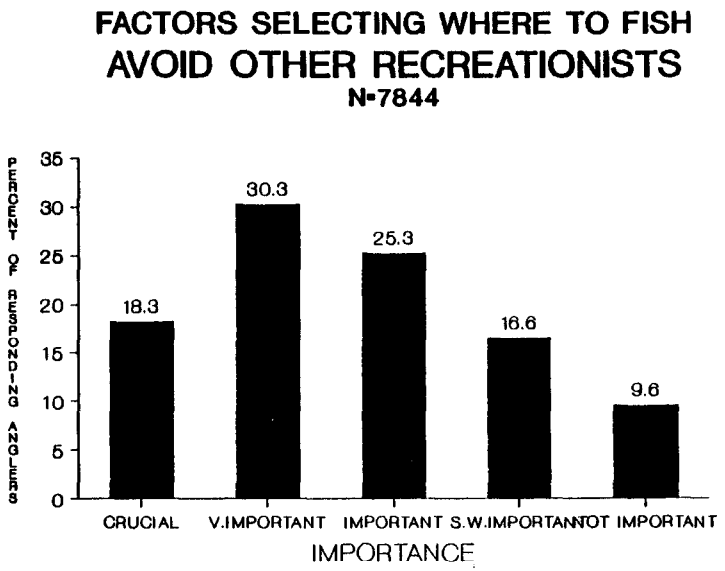
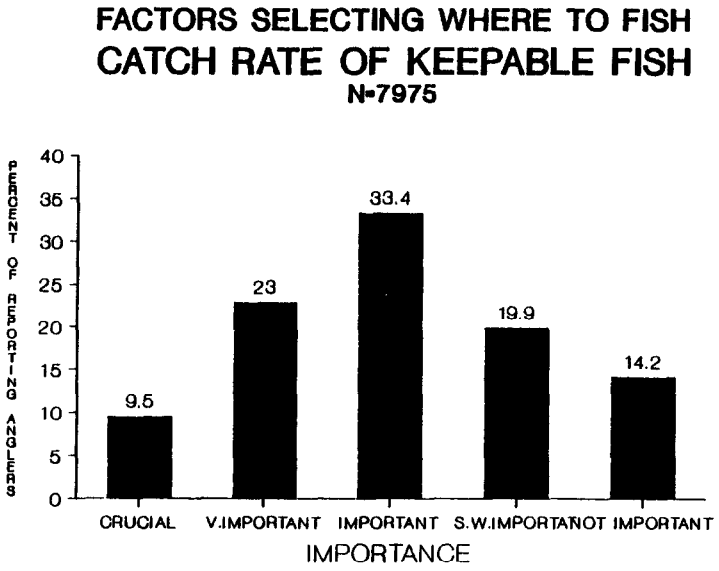




Figure 10. Importance anglers place on the factors "to avoid angler crowding" and "to avoid other forms of recreation" in selecting where to fish by percent of reporting anglers, 1987.



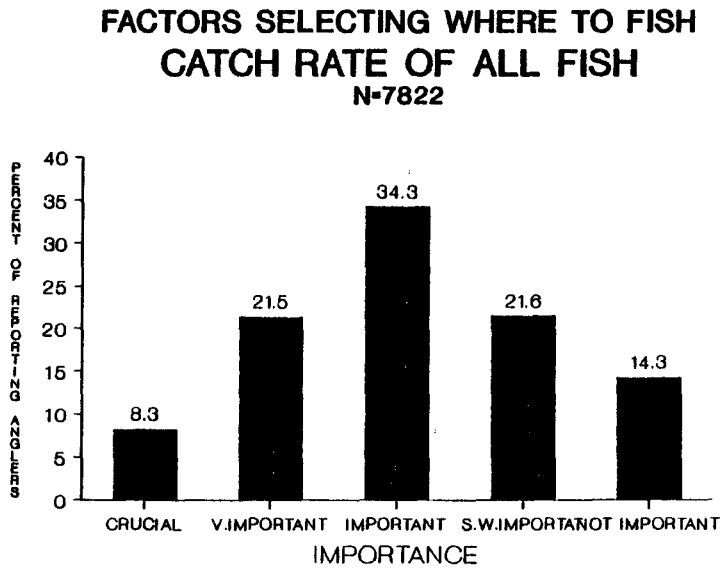
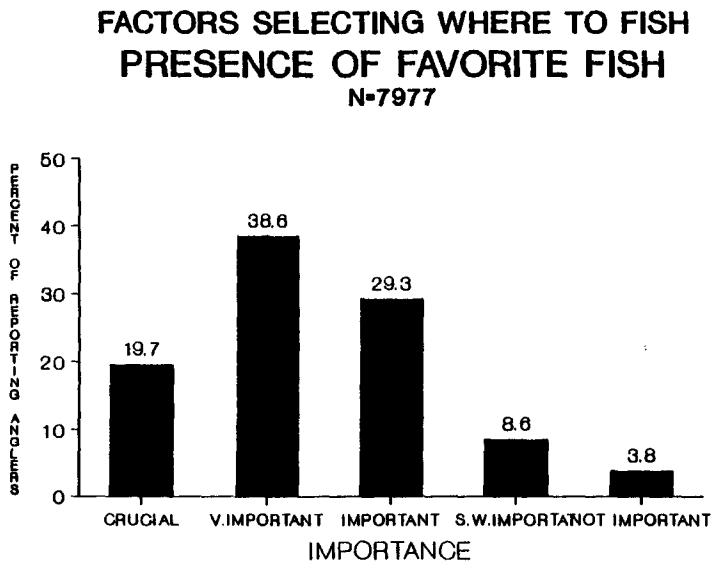
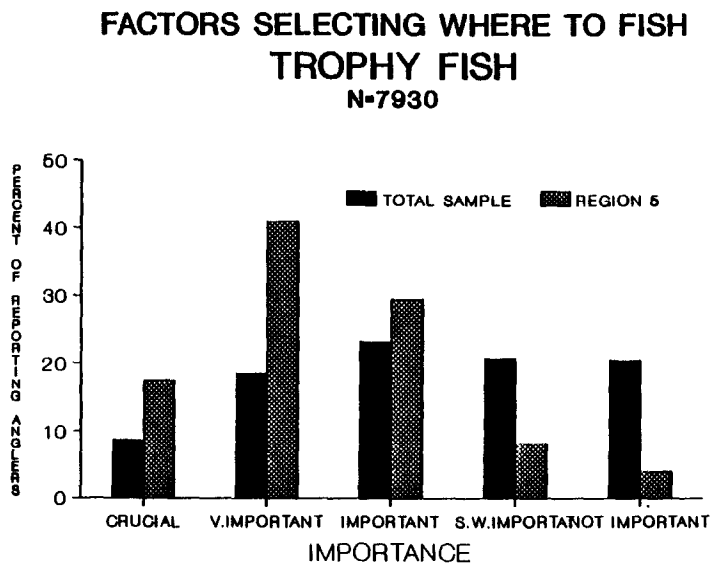
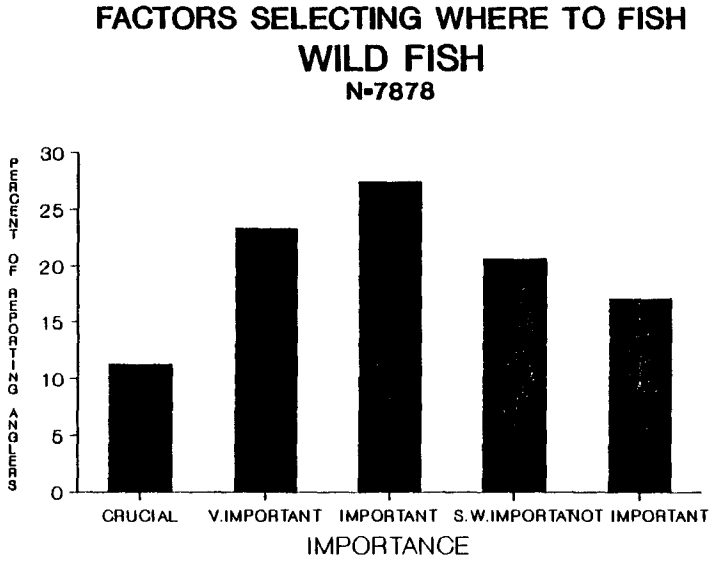




Figure 11. Importance anglers place on the factors "catch rates of keepable fish" and "catch rates of all fish" in selecting where to fish by percent of reporting anglers, 1987.



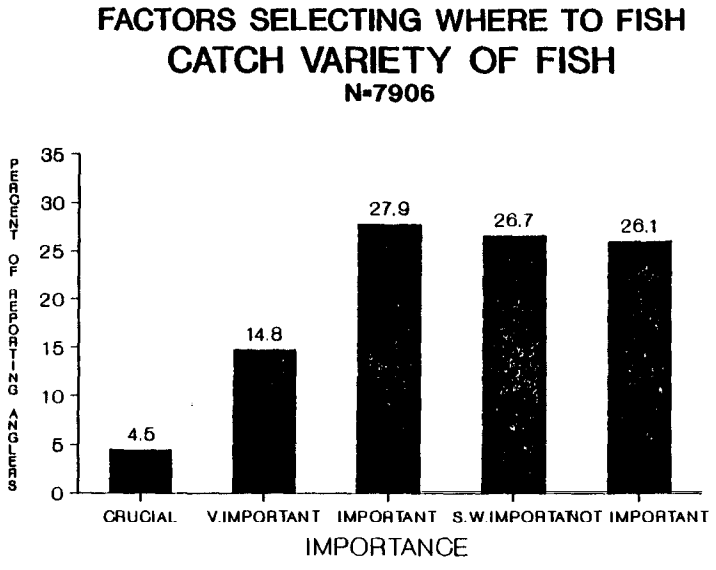
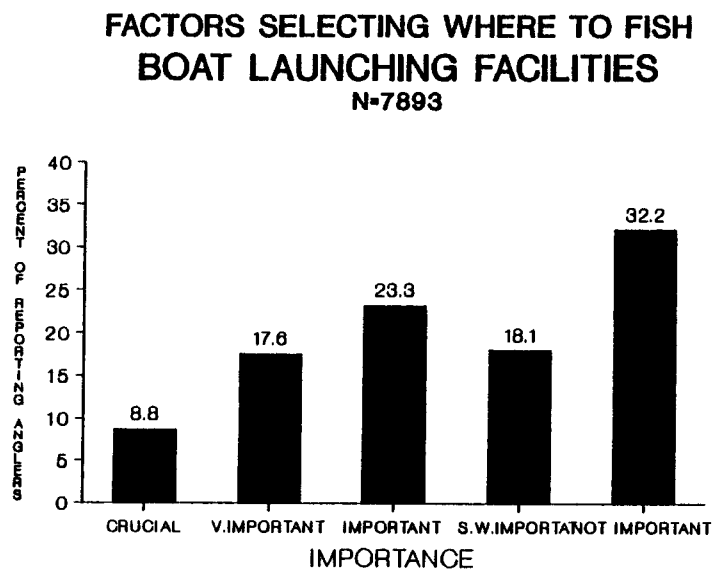
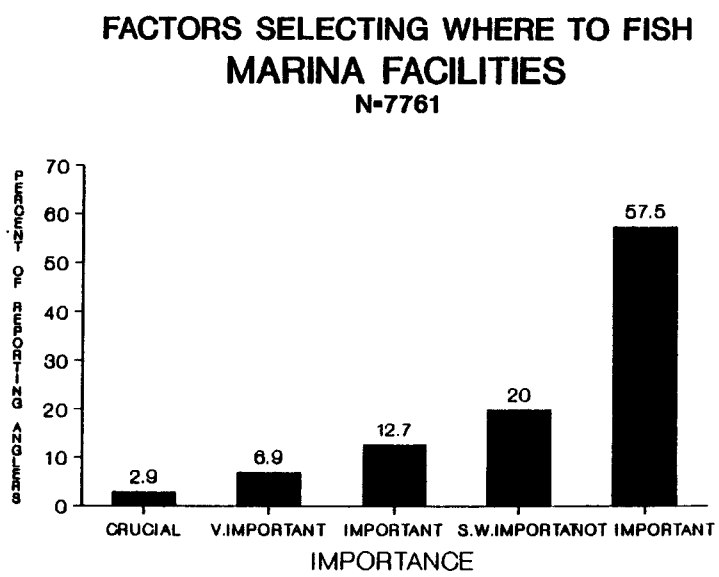
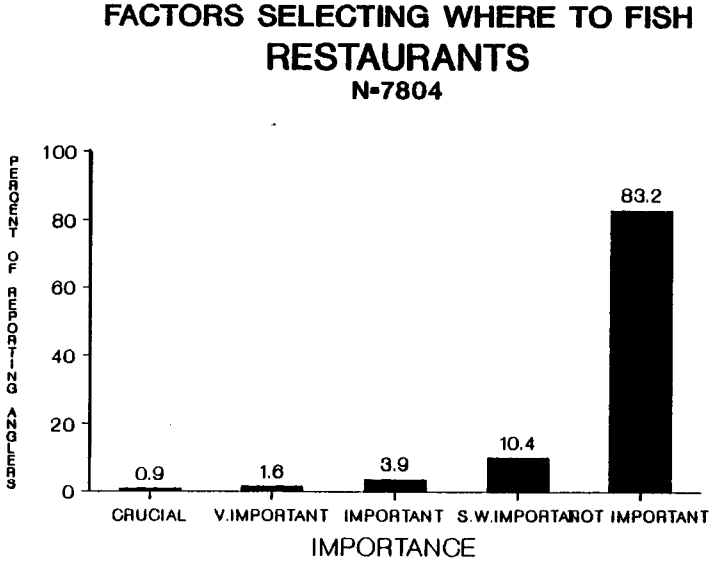




Figure 12. Importance anglers place on the factors "presence of favorite fish," "trophy fish," "wild fish," and "chance to catch a variety of fish" in selecting where to fish by percent of reporting anglers, 1987.



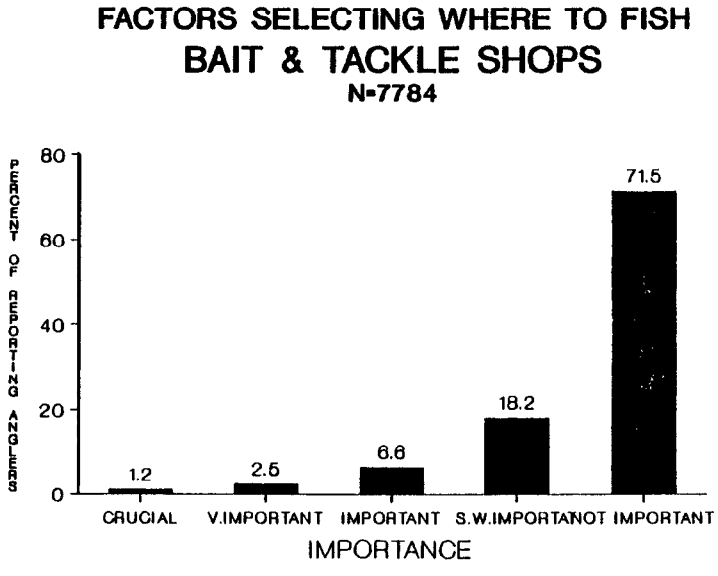
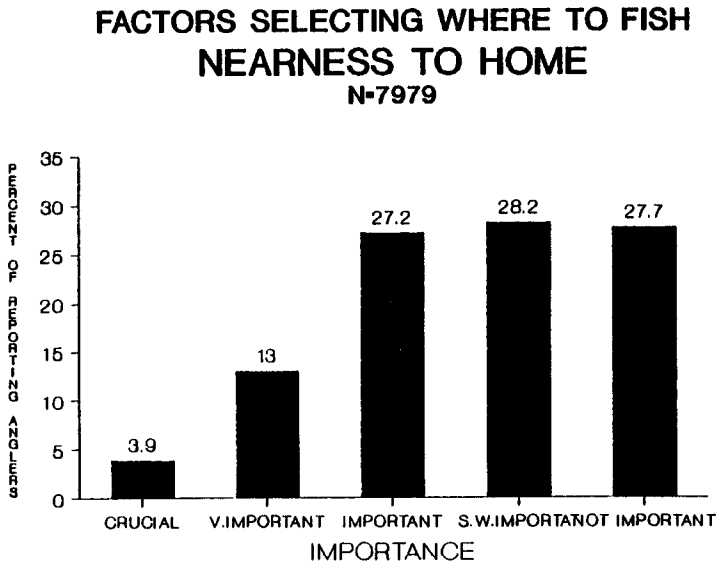




Figure 13. Importance anglers place on the factors "boat launching facilities," "marina facilities," "nearness of restaurants," and "nearness to bait and tackle shops" in selecting where to fish by percent of reporting anglers, 1987.



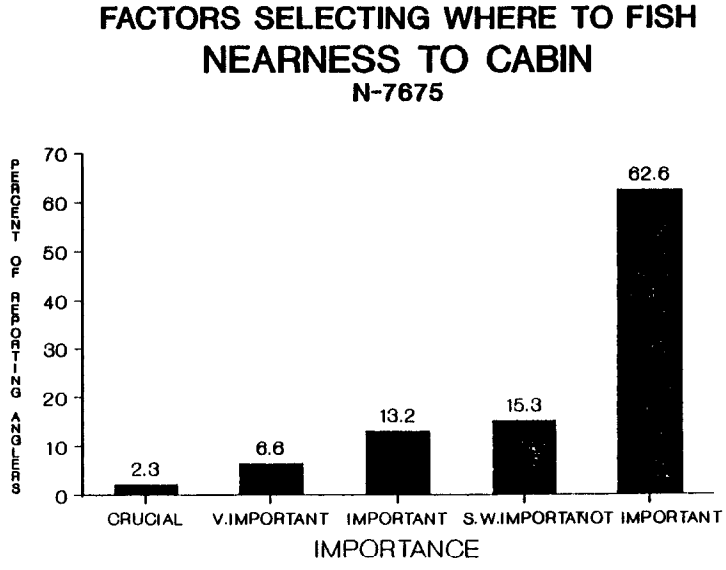




Figure 14. Importance anglers place on the factor "nearness to home" and "nearness to cabin" in selecting where to fish by percent of reporting anglers, 1987.

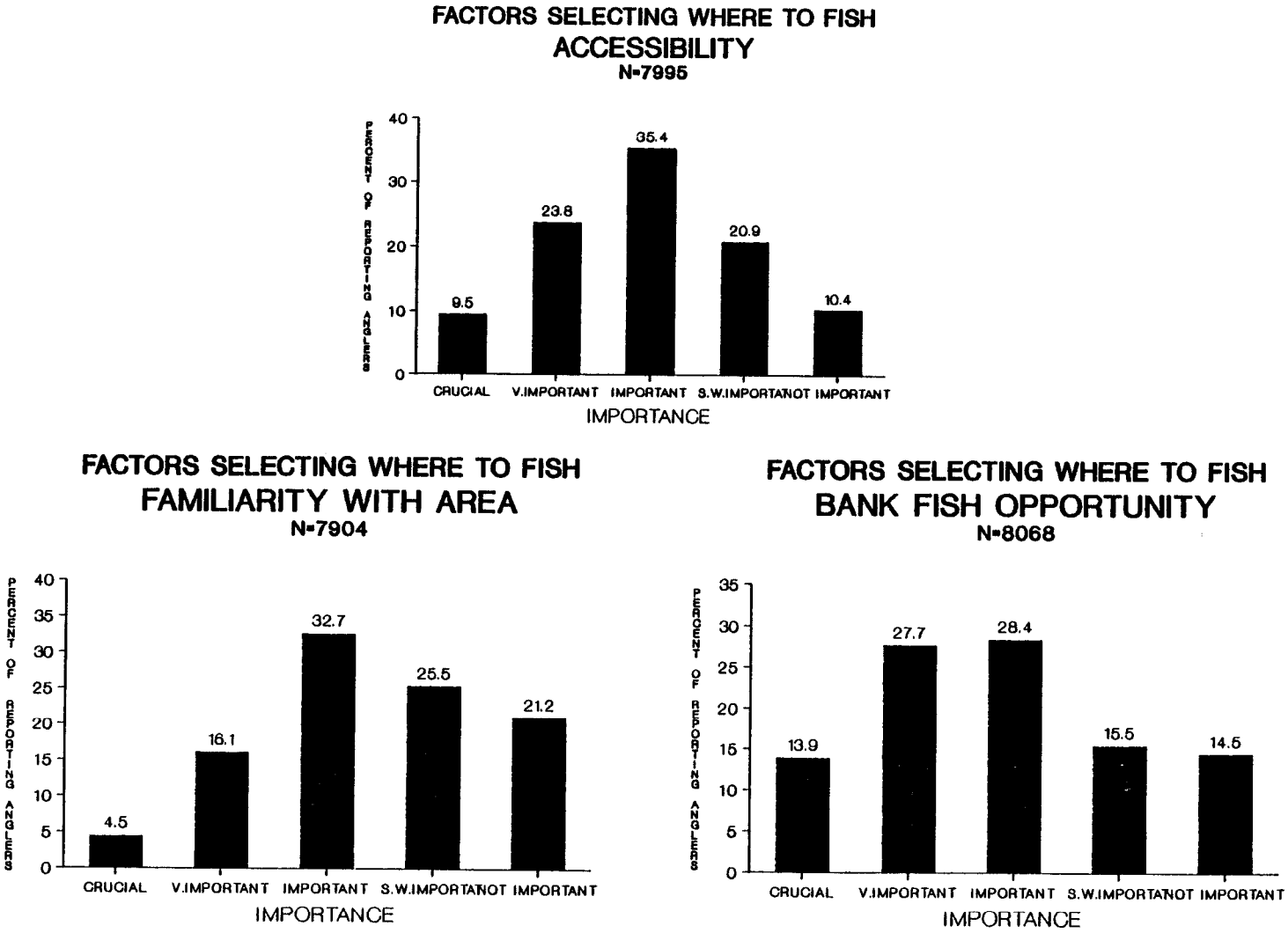
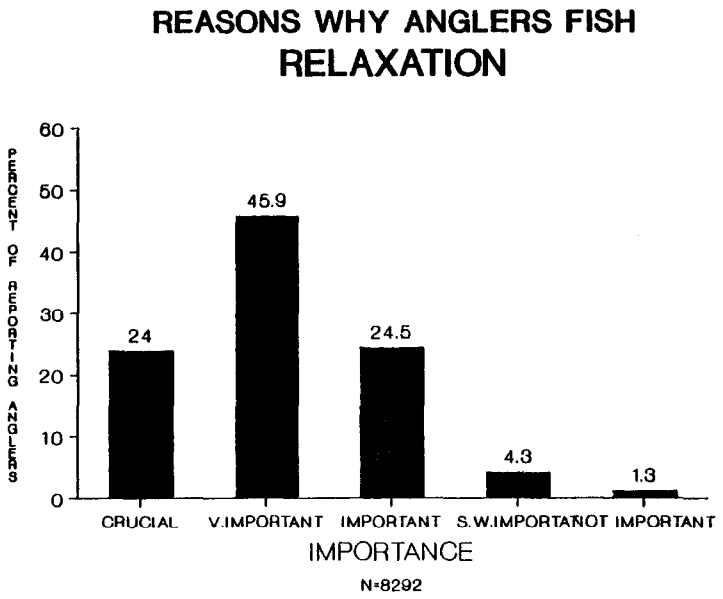



Figure 15. Importance anglers place on the factors "accessibility," "familiarity with area," and "bank fishing opportunity" by percent of reporting anglers, 1987.



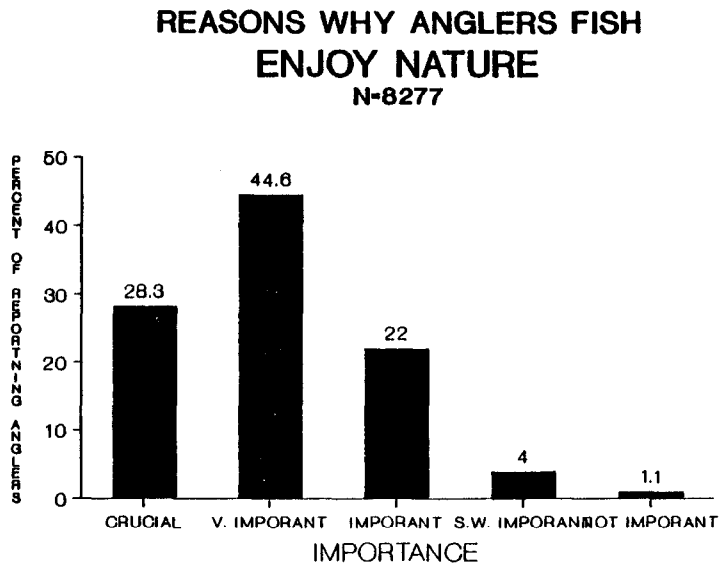




Figure 16. Reasons why anglers fish and the importance they place on the factors "relaxation" and to "enjoy nature" by percent of reporting anglers, 1987.

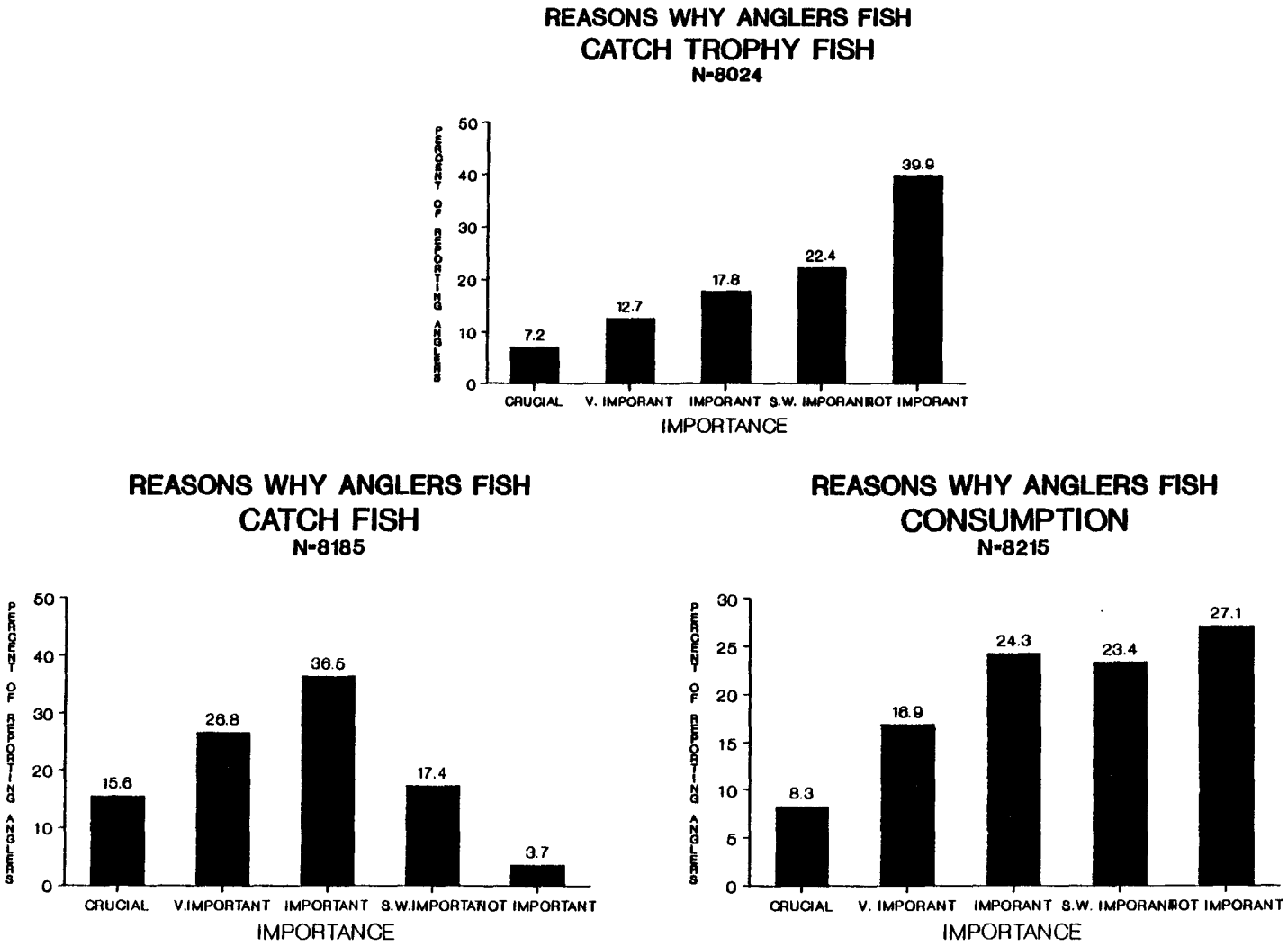
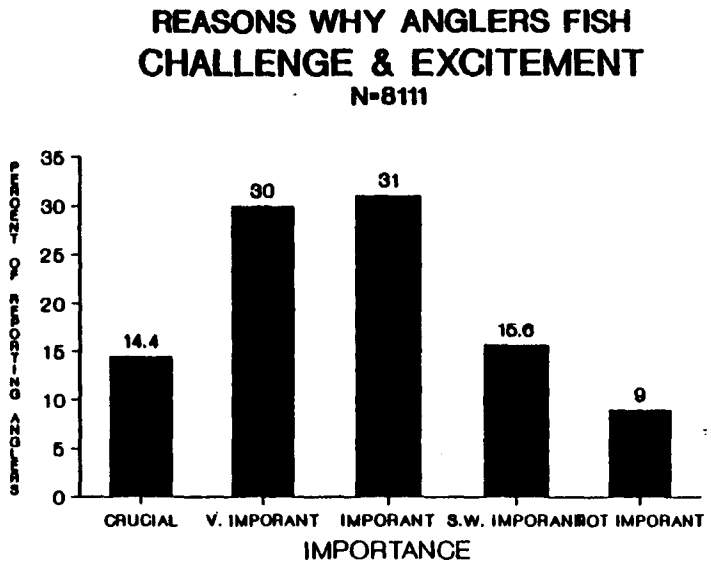
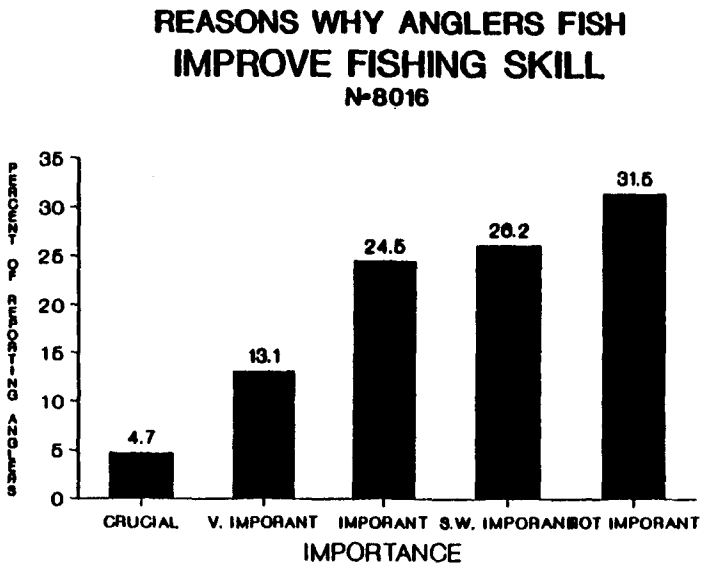
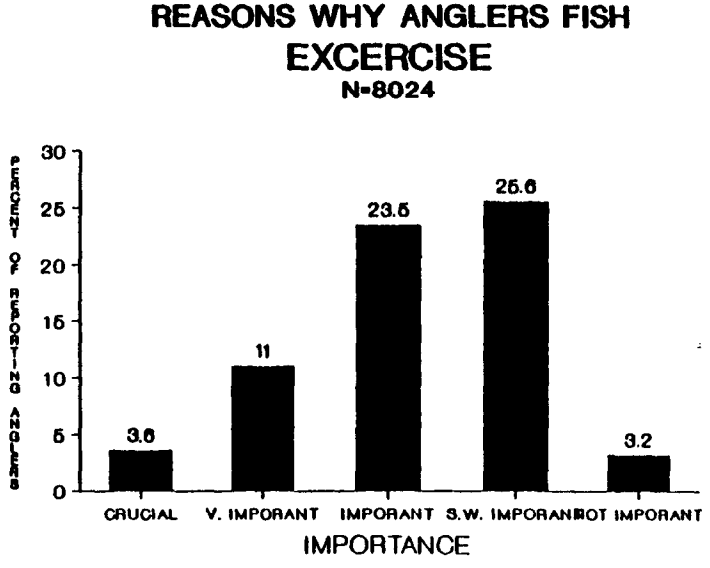



Figure 17. Reasons why anglers fish and the importance they place on the factors, "to catch trophy fish," "to catch fish," and "to fish for consumption," by percent of reporting anglers, 1987.



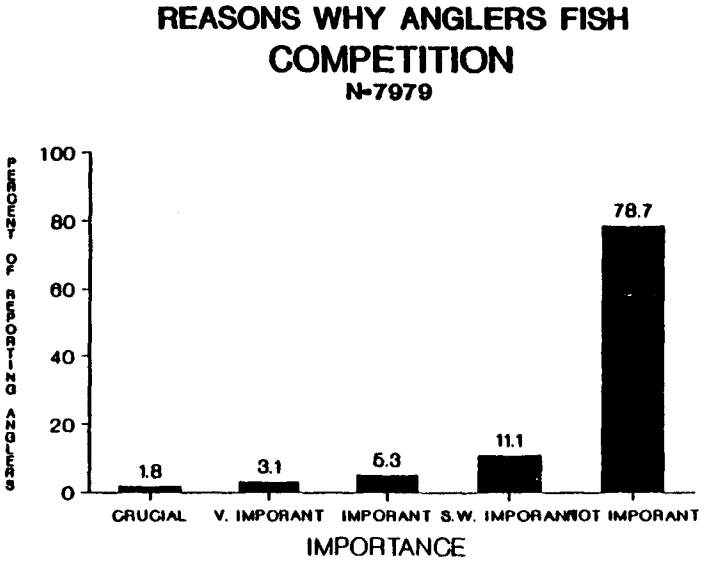




Figure 18. Reason why anglers fish and the importance they place on the factors, "the challenge and excitement," "to improve fishing skills," "for exercise," and "for competition," by percent of reporting anglers, 1987.

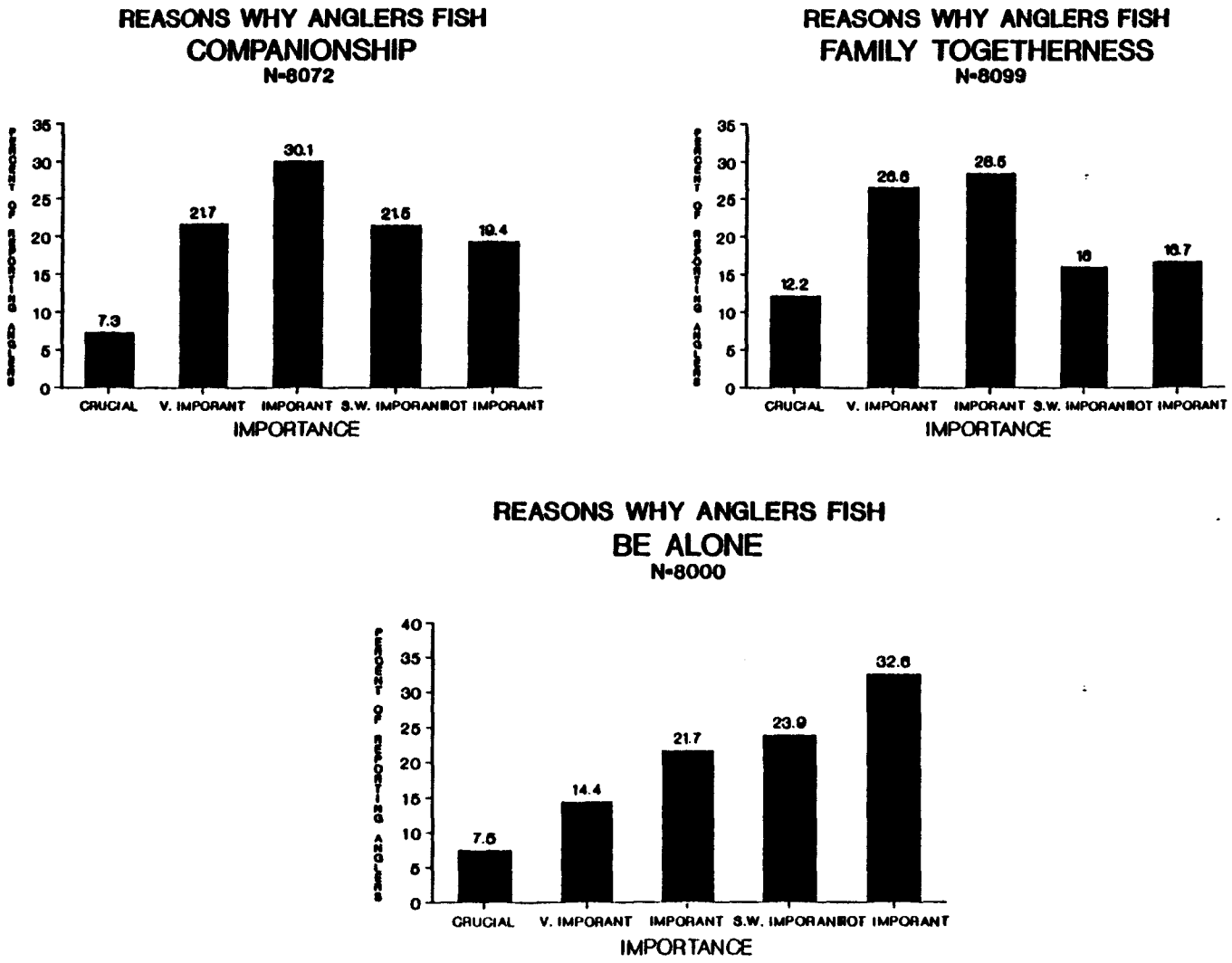



Figure 19. Reasons why anglers fish and the importance they place on the factors, "companionship," "family togetherness," and "to be alone," by percent of reporting anglers, 1987.

## Survey Bias

To detect any nonresponse bias from a particular segment of the fishing public, we conducted a telephone survey of a subsample of individuals that had failed to return questionnaires. We did detect a higher incidence of bait fishermen in the telephone survey than we found in the mail survey. We also found that nonresident 1-, 3-, and 10-day license buyers and individuals in the 60+ age group did not make up as great a percent of the survey as what occurred in the license buying population. We do not believe these biases had any negative impacts on the results of the survey. Lure and bait anglers did not differ greatly in opinions and preferences throughout the survey, and we did not detect great differences in responses provided between nonresident user groups or age groups.

# DISCUSSION

Results of this survey indicate that many of the demographics, opinions and preferences of the Idaho angler have changed little over the past 20 years, since Douglas Gordon conducted the first Idaho opinion survey in 1968. The median age of the Idaho fisherman remains at about 30 to 40 years of age and over three-fourths of the fishermen are male. As in the past, over one-third of Idaho's population and fishing license buyers reside in southwest Idaho. Also, nearly three-fourths of the nonresident fishermen to Idaho continue to come from the five surrounding states plus California.

Although the median age has changed little over the past 20 years, the percent of juvenile anglers has declined from previous survey work to the present. It is difficult to determine if the decline in juvenile fishermen is significant as previous workers did not include statistical results. However, the Idaho Department of Fish and Game should continue information and education programs designed to introduce the youth of Idaho to the fishing opportunities in this state and develop fishery programs of interest to the younger fishermen. Those efforts should be directed towards single-parent families or families that do not currently fish. Results of this survey indicate that if one parent in a family participates in fishing activities, the children will also fish.

Fishermen in this survey gave "family togetherness" as one of the primary reason why they fish in Idaho. If a respondent stated they had a spouse, over 60% said that spouse also participated in fishing. Also, about one in every four license buyers in Idaho is female. Survey results provide a strong indication that, for those with families, fishing does provide a desirable recreation form that all can participate in. The Idaho Department of Fish and Game should continue to foster family togetherness in its information and education programs, work with land management agencies to provide dispersed camping facilities and develop new access available to those with young children.

Most Idaho fishermen still want to continue protection of wild trout and want increased emphasis on management of wild trout populations. In addition, most fishermen in Idaho would like to have additional waters managed to provide trophy trout.

As in past surveys, Idaho fishermen have expressed a preference for fishing in rivers and streams. They have also expressed the desire for the Department to place increased emphasis on habitat protection. The direction provided by the fishing public is for maintenance of quality river and stream habitat. Regional Fishery Managers throughout the state already spend a disproportionate amount of time on habitat-related problems. To meet public expectations, the Idaho Department of Fish and Game may have to create additional staff to coordinate with land management agencies to ensure adequate measures are being taken to protect or improve stream habitats.

Although the majority of Idaho fishermen still prefer fishing on rivers and streams, over one-half of the actual effort was spent on lakes and reservoirs. In addition, one out of three fishermen in Idaho owns a boat for fishing. The Department should increase efforts to provide additional access to lakes and reservoirs throughout the state. Lake and reservoir access development also creates the opportunity to satisfy a need for increased handicap access and to remove consumptive fishing pressure from rivers and streams that need a reduction in wild trout exploitation. The primary thrust of reservoir and lake access development should be towards bank or shore fishermen first and improving or constructing boat launching facilities second.

Fishermen in the state of Idaho have also remained oriented toward fishing for coldwater species, specifically rainbow trout and cutthroat trout. The number of fishermen that prefer rainbow trout alone accounted for almost as many anglers as the entire warmwater fishery program. In addition, the majority of survey respondents stated a desire for greater emphasis on wild trout management, hatchery trout production for lakes and hatchery production for streams. They also asked for "no change" in the emphasis towards warmwater fisheries, the only category that anglers did not want "more" program emphasis for. The direction provided is to continue efforts to maintain or improve coldwater fisheries as the first priority. The Department should continue efforts to improve warmwater populations but not at the expense of coldwater fisheries or coldwater fish habitat. The Department should continue efforts to improve and diversify warmwater fishing opportunities. Warmwater populations should be expanded only where habitats will no longer support coldwater species or where available habitat exists for both cold and warmwater species to co-exist.

For the most part, people fishing Idaho waters seem satisfied with the quality of trout planted by the Idaho Department of Fish and Game. Those anglers generally would not want a few larger trout planted if it would reduce the numbers available for stocking. However, at least one-third of all respondents said they would like a few larger trout stocked and a large number of anglers would like quality improved. In addition, the majority of Idaho anglers would like more emphasis placed

on hatchery trout production. The objective of the Department should be to maintain the number of hatchery trout available, provide a few larger fish in put-and-take fisheries and maintain or improve the quality of the hatchery product. We can achieve those objectives by making more efficient use of the current hatchery product, such as reducing or eliminating put-and-take fisheries from streams with poor returns and good wild trout populations and increasing the use of fingerling trout in reservoirs and lakes that have good growth potential. More trout should then become available for stocking high use areas, and additional space could be found in hatcheries for a few larger fish.

A majority of people responding to this survey would not support further introductions of walleye if they might impact other game fish populations. The Department should take this as strong direction to proceed with caution when considering any exotic introduction. Efforts should be taken to ensure that predators will have an adequate prey base, a vacant niche exists and the introduced species will not adversely impact other resources.

Organized sportsmen tend to become more involved with the management of the fishery resource in Idaho. As a result, the opinions and preferences of those sportsmen is heard more often than nonorganized fishermen. However, as stated earlier, only one out of every five fishermen belong to sportsmen groups. It then becomes desirable to know how the organized fishermen differ from those that do not belong to organized clubs or other groups and how those differences may affect the results expressed in this survey.

The demographics of those belonging to organized groups differ from those of nongroup fishermen in some categories surveyed. A significantly higher proportion of the individuals that belong to sportsmen groups are between 40-49 years of age, while anglers from 14 through 29 years of age are more likely to not belong to any groups. Also, fishermen older than 60 years tend to not belong to organized groups. Men are more likely to belong to sportsmen groups, and a group member is more likely to own a boat.

Overall survey opinions or preferences do not change as a result of differences expressed by members of sportsmen groups versus nongroup members. However, significant differences expressed to some questions can be used to distinguish group and nongroup respondents. Those that belong to organized sportsmen groups were more likely to say the six fish trout limit is too many. They were also more likely to want larger fish as opposed to numbers and would be more inclined to favor restricting harvest to protect wild fish. The sportsmen group segment of the survey would be more likely to support wild trout protection and catch-and-release regulations. Sportsmen group members also differed by stating a stronger preference for river and stream fishing and the use of artificial flies as terminal gear.

Although females that preferred rivers and streams outnumbered those that preferred other water types, women were more likely than men to prefer lakes and reservoirs.Likewise, a significantly larger

proportion of the male fishing population preferred fishing on rivers and streams. When selecting "where to fish," female anglers placed greater importance on material factors such as marina facilities, camping facilities and access than did male anglers. Female anglers are more likely to participate in fishing for companionship and family togetherness than are male fishermen.

Although the overall opinions and preferences will not change, we did observe significantly different responses to some questions based on the type of terminal gear preferred. Bait fishermen were the least likely to belong to an organized sportsmen group, while fly anglers were the most likely to belong. Lure fishermen differed significantly from the other two but were not as prone to join groups as fly anglers and more apt to join than bait fishermen. Those anglers that prefer lures as terminal tackle were more likely to own a boat. While lure and bait anglers feel the current statewide trout limit of 6 fish is about right, the majority of the fly fishermen feel that 6 fish is too many. Fly and lure fishermen are more likely to want a few larger fish planted, while bait fishermen seem to prefer maintaining numbers.

Fly fishermen are much more likely to prefer protection of wild trout than are bait or lure fishermen. Lure anglers, however, are more likely to prefer management options that would protect wild trout than are anglers that prefer bait as terminal tackle. A similar relationship holds with regard to providing larger trout, knowing restrictive regulations would be needed; providing more habitat protection and catch-and-release regulations. On the issue of catch-and-release regulations, bait and fly fishermen are at extreme poles, with fly anglers voicing support for catch-and-release regulations and bait anglers in opposition. Anglers preferring lures for terminal tackle are split almost 50:50 on the issue. On the other hand, bait fishermen are more apt to favor increases in hatchery production, while fly and lure fishermen seem pleased with current levels of fish stocked.

Basic differences between fly and bait fishermen seem to relate to quality versus quantity, with bait fishermen opting for numbers and fly fishermen preferring larger or wild fish. When tied with the importance these fishermen place on selecting where to fish and why they fish, some guidelines develop regarding stocking programs and selection of waters to manage for quality or wild trout management.

Factors such as avoidance of angler crowding, solitude, the chance to catch wild fish and the chance to catch trophy fish seem more important. to fly fishermen than they are to bait fishermen. On the other hand, bait fishermen tend to place more importance on catch rates, travel distances and accessibility. It would then seem that waters close to populations centers with low numbers of wild trout would be the better location for stocking of hatchery-reared trout. Streams or rivers in remote areas with only moderate to low fishing pressure and high densities of wild trout would provide the better location for regulations which would protect wild trout and may provide quality or trophy fishing.

It has been recognized that this type of survey is a poor method of obtaining angler use and harvest information. We can, at best, hope the information will be somewhat comparable to other survey work in the state. The estimate of days fished given in this report appears to be comparable to estimates provided by Mallet from the 1977 angler survey and results from the 1985 Survey of Fishing, Hunting, and Wildlife-Recreation.

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**ACKNOWLEDGEMENTS**

I wish to acknowledge Tom McArthur, who provided the statistical and computer know-how. Without his help this project would have been much more demanding. I also wish to thank Al Van Vooren and Virgil Moore for their technical review.

**Appendix I**

IDAHO FISH & GAME
600 South Walnut / Box 25
Boise, Idaho 83707

May 17, 1988

Dear Angler:

You will find on the enclosed pages the Idaho Angler Opinion Survey. The Idaho Department of Fish and Game conducts this survey every 10 years. Survey results will help determine the policies and goals governing the management of the State Fishery Resource through the next 10 year planning period.

Your help in determining Idaho's fishing future is greatly appreciated.

Sincerely,

Jerry M. Conley
Director

Enclosure

# 1988 IDAHO ANGLER OPINION SURVEY

1. What is your age?

| 14-19 | 20-29 | 30-39 | 40-49 | 50-59 | 60+ |
|---|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

2. What is your sex? Male ☐ Female ☐

3. Did you fish in Idaho in 1987? Yes ☐ No ☐

4. What is your permanent residence?

State _____ County _____

5. Does your spouse fish? Yes ☐ No ☐ Not married ☐

6. How many children under age 14 are there living at your home? _____

7. How many children under age 14 living at home participate in fishing? _____

8. Do you belong to a sportsman organization? Yes ☐ No ☐

9. Do you own a boat used for fishing in Idaho? Yes ☐ No ☐

10. What type of Idaho license did you purchase in 1987?

| RESIDENT | | NONRESIDENT | |
|---|---|---|---|
| Hunt-Fish Combination | ☐ | Season Fishing | ☐ |
| Season Fishing | ☐ | 10-Day Fishing | ☐ |
| | | 3-Day Fishing | ☐ |
| | | 1-Day Fishing | ☐ |

11. Do you feel the price you paid for your license to fish in Idaho waters in 1987 was:

Too High ☐ About Right ☐ Too Low ☐

12. If you fished in Idaho during 1987, please list the three waters most frequently fished:

Water: _____ County: _____

Water: _____ County: _____

Water: _____ County: _____

13. If you fished for trout in Idaho during 1987, do you believe the present statewide limit of 6 trout is:

Too Many ☐ About Right ☐ Too Few ☐ No Opinion ☐

14. Would you like a portion of the 9-inch hatchery trout production converted into a few trout larger than 12 inches? Even knowing that one 12-inch trout will replace three 9-inch trout available for stocking in Idaho waters?

Yes ☐ No ☐ No Opinion ☐

15. How would you rate the quality of trout stocked by the Idaho Department of Fish and Game?

Excellent ☐ Good ☐ Fair ☐ Poor ☐ No Opinion ☐

16. Increased fishing pressure has reduced wild trout populations in some Idaho streams. To maintain fishab populations would you favor:

- ☐ Restrict the number or size of wild trout that could be kept?
- ☐ Replace wild trout with hatchery trout?
- ☐ No Opinion.

17. Would you like to have additional streams or lakes managed to provide larger than average trout and increased catch rates, even knowing that methods of fishing and numbers and size of fish that could be kept would be restricted?

Yes ❑ No ❑ No Opinion ❑

18. If you knew that restrictions were needed to increase the size and catch rates of trout on a given water, would you prefer (more than one box may be checked):

- ❑ Artificial tackle only.
- ❑ Reduced bag limits.
- ❑ Shorter seasons.
- ❑ Size restriction.
- ❑ No opinion.

19. Please indicate the programs you feel should receive more or less emphasis:

| | More | Less | No Change |
|---|---|---|---|
| Hatchery trout production for lakes | ❑ | ❑ | ❑ |
| Protection and enhancement of wild trout | ❑ | ❑ | ❑ |
| Warm water fisheries | ❑ | ❑ | ❑ |
| Hatchery trout production for streams | ❑ | ❑ | ❑ |
| Habitat protection | ❑ | ❑ | ❑ |
| Salmon and Steelhead | ❑ | ❑ | ❑ |

20. If you had to release all of the trout you caught from your favorite trout stream, would you continue to fish that stream?

Yes ❑ No ❑ No Opinion ❑

21. If a stream or lake could provide the opportunity to catch trophy trout, would you fish that stream or lake, even if you had to release all the fish you caught?

Yes ❑ No ❑ No Opinion ❑

22. Fishing contests and tournaments are currently unregulated in Idaho. Please check the box that best describes your feelings about tournaments and contests.

- ❑ Should remain unregulated.
- ❑ Should be regulated.
- ❑ Should be prohibited.
- ❑ No opinion.

23. Would you like some lakes or ponds in Idaho managed to provide increased catch rates for bass greater than 15 inches in length, even knowing that numbers and size of fish that could be kept would be restricted?

Yes ❑ No ❑ No Opinion ❑

24. If you fish for bass in Idaho, what is the smallest (a) largemouth bass, (b) smallmouth bass you would keep if not restricted?

| Largemouth | Smallmouth |
|---|---|
| ❑ 6 inches | ❑ 6 inches |
| ❑ 8 inches | ❑ 8 inches |
| ❑ 10 inches | ❑ 10 inches |
| ❑ 12 inches | ❑ 12 inches |
| ❑ 14 inches | ❑ 14 inches |

25. If you fish for bass in Idaho, what would you consider a quality-size (a) largemouth bass, (b) smallmouth bass?

| Largemouth | Smallmouth |
|---|---|
| ❑ 12 inches | ❑ 12 inches |
| ❑ 14 inches | ❑ 14 inches |
| ❑ 16 inches | ❑ 16 inches |
| ❑ 18 inches | ❑ 18 inches |
| ❑ 20 inches | ❑ 20 inches |

26. Do you feel the Idaho Department of Fish and Game should provide more information about available fishing opportunities, such as location of lakes and streams, public access areas, or types of fish available?

Yes ❑ No ❑ No Opinion ❑

27. Would you favor allowing two daily bag limits as a possession limit for lakes and reservoirs even though it may mean lower catch rates?

Yes ❑ No ❑ No Opinion ❑

28. The Department's Fish Management Plan limits walleye introductions to two reservoirs where fisheries have been estalished. Would you like to see walleye introduced in additional reservoirs even knowing trout and other fisheries would be impacted?

Yes ❑ No ❑ No Opinion ❑

29. Would you please check in the boxes below (1) all of the fish species you fished for in 1987, (2) the types of water you fished, (3) the modes of fishing (shore, boat, ice, float tube), and (4) the types of fishing gear you used. Please check all appropriate boxes.

| 1 Species Fished For in 1987 | | 2 Water Typed Fished | | | 3 Mode of Fishing | | | | 4 Method of Fishing | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mountain Lakes | Lake/ Reservoir | Stream/ River | Shore/ Wade | Boat | Float Tube | Ice Fish | Lure/ Spin | Bait | Fly | Other |
| EXAMPLE: (Bass) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Yellow Perch | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Bluegill/Pumpkinseed | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Crappie | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Smallmouth bass | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Largemouth bass | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Walleye | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Pike | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Steelhead | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Anadromous chinnok salmon | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Landlocked chinook salmon | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Cutthroat trout | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Rainbow trout | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Brook trout | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Bull trout (Dolly Varden) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Brown trout | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Lake trout | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Kokanee/Coho | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Catfish | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Sturgeon | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Whitefish | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Nongame | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

30. Please list the three species you most prefer to catch (1 = most preferred): 1._____ 2. _____ 3._____

31. Please name the <u>one</u> water type (listed above) you most prefer: _____

32. Please name the <u>one</u> mode of fishing (listed above) you most prefer: _____

33. Please name the <u>one</u> method of fishing (listed above) you most prefer: _____

34. Please check the box that best describes your satisfaction in 1987 while fishing the fishery types listed below and estimate the number of days spent fishing each fishery type:

| Fishery Type | Days Fished | Excellent | Good | Fair | Poor |
|---|---|---|---|---|---|
| Anadromous chinook salmon | | ❑ | ❑ | ❑ | ❑ |
| Landlocked chinook salmon | | ❑ | ❑ | ❑ | ❑ |
| Steelhead | | ❑ | ❑ | ❑ | ❑ |
| High Mountain Lakes | | ❑ | ❑ | ❑ | ❑ |
| Lakes and Reservoirs for trout | | ❑ | ❑ | ❑ | ❑ |
| Lakes and Reservoirs for kokanee | | ❑ | ❑ | ❑ | ❑ |
| Lakes and Reservoirs for bass | | ❑ | ❑ | ❑ | ❑ |
| Lakes and Reservoirs for perch | | ❑ | ❑ | ❑ | ❑ |
| Lakes and Reservoirs for sunfish/crappie | | ❑ | ❑ | ❑ | ❑ |
| Lakes and Reservoirs for walleye | | ❑ | ❑ | ❑ | ❑ |
| Lakes and Reservoirs for pike | | ❑ | ❑ | ❑ | ❑ |
| Lakes and Reservoirs for other | | ❑ | ❑ | ❑ | ❑ |
| Rivers and Streams for trout | | ❑ | ❑ | ❑ | ❑ |
| Rivers and Streams for whitefish | | ❑ | ❑ | ❑ | ❑ |
| Rivers and Streams for bass | | ❑ | ❑ | ❑ | ❑ |
| Rivers and Streams for other | | ❑ | ❑ | ❑ | ❑ |
| Sturgeon | | ❑ | ❑ | ❑ | ❑ |

35. In order to improve fishing opportunities, we need to know what factors are important to you in selecting **where** to fish. Please check **one** box for each factor indicating the importance you place on the factors shown in the table below.

| Factor | Crucial | Very Important | Important | Somewhat Important | Not Important |
|---|---|---|---|---|---|
| Avoid angler crowding | ❑ | ❑ | ❑ | ❑ | ❑ |
| Avoid other forms of recreationists | ❑ | ❑ | ❑ | ❑ | ❑ |
| Boat launching facilities | ❑ | ❑ | ❑ | ❑ | ❑ |
| Marina facilities | ❑ | ❑ | ❑ | ❑ | ❑ |
| Nearness to restaurants | ❑ | ❑ | ❑ | ❑ | ❑ |
| Nearness to bait and tackle shops | ❑ | ❑ | ❑ | ❑ | ❑ |
| Nearness to camping facilities | ❑ | ❑ | ❑ | ❑ | ❑ |
| Natural beauty of the area | ❑ | ❑ | ❑ | ❑ | ❑ |
| Solitude | ❑ | ❑ | ❑ | ❑ | ❑ |
| Catch rate of keepable fish | ❑ | ❑ | ❑ | ❑ | ❑ |
| Catch rate of all fish | ❑ | ❑ | ❑ | ❑ | ❑ |
| Presence of favorite fish (species) | ❑ | ❑ | ❑ | ❑ | ❑ |
| Chance to catch a large or trophy fish | ❑ | ❑ | ❑ | ❑ | ❑ |
| Chance to catch wild fish | ❑ | ❑ | ❑ | ❑ | ❑ |
| Water quality | ❑ | ❑ | ❑ | ❑ | ❑ |
| Chance to catch a variety of fish | ❑ | ❑ | ❑ | ❑ | ❑ |
| Nearness to home (travel distance) | ❑ | ❑ | ❑ | ❑ | ❑ |
| Nearness to second home or cabin | ❑ | ❑ | ❑ | ❑ | ❑ |
| Familiarity with the area | ❑ | ❑ | ❑ | ❑ | ❑ |
| Accessibility | ❑ | ❑ | ❑ | ❑ | ❑ |
| Bank fishing opportunity | ❑ | ❑ | ❑ | ❑ | ❑ |

36. We would like to know some of the reasons **why** you fish. Please check the box indicating the importance you place on each reason.

| Reason | Crucial | Very Important | Important | Somewhat Important | Not Important |
|---|---|---|---|---|---|
| To catch fish | ❑ | ❑ | ❑ | ❑ | ❑ |
| For relaxation | ❑ | ❑ | ❑ | ❑ | ❑ |
| To enjoy nature | ❑ | ❑ | ❑ | ❑ | ❑ |
| For companionship | ❑ | ❑ | ❑ | ❑ | ❑ |
| For the challenge and excitement | ❑ | ❑ | ❑ | ❑ | ❑ |
| To be alone | ❑ | ❑ | ❑ | ❑ | ❑ |
| To improve fishing skill | ❑ | ❑ | ❑ | ❑ | ❑ |
| For exercise | ❑ | ❑ | ❑ | ❑ | ❑ |
| Family togetherness | ❑ | ❑ | ❑ | ❑ | ❑ |
| Chance to catch trophy fish | ❑ | ❑ | ❑ | ❑ | ❑ |
| Competition with other anglers | ❑ | ❑ | ❑ | ❑ | ❑ |
| Catch fish for consumption | ❑ | ❑ | ❑ | ❑ | ❑ |

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